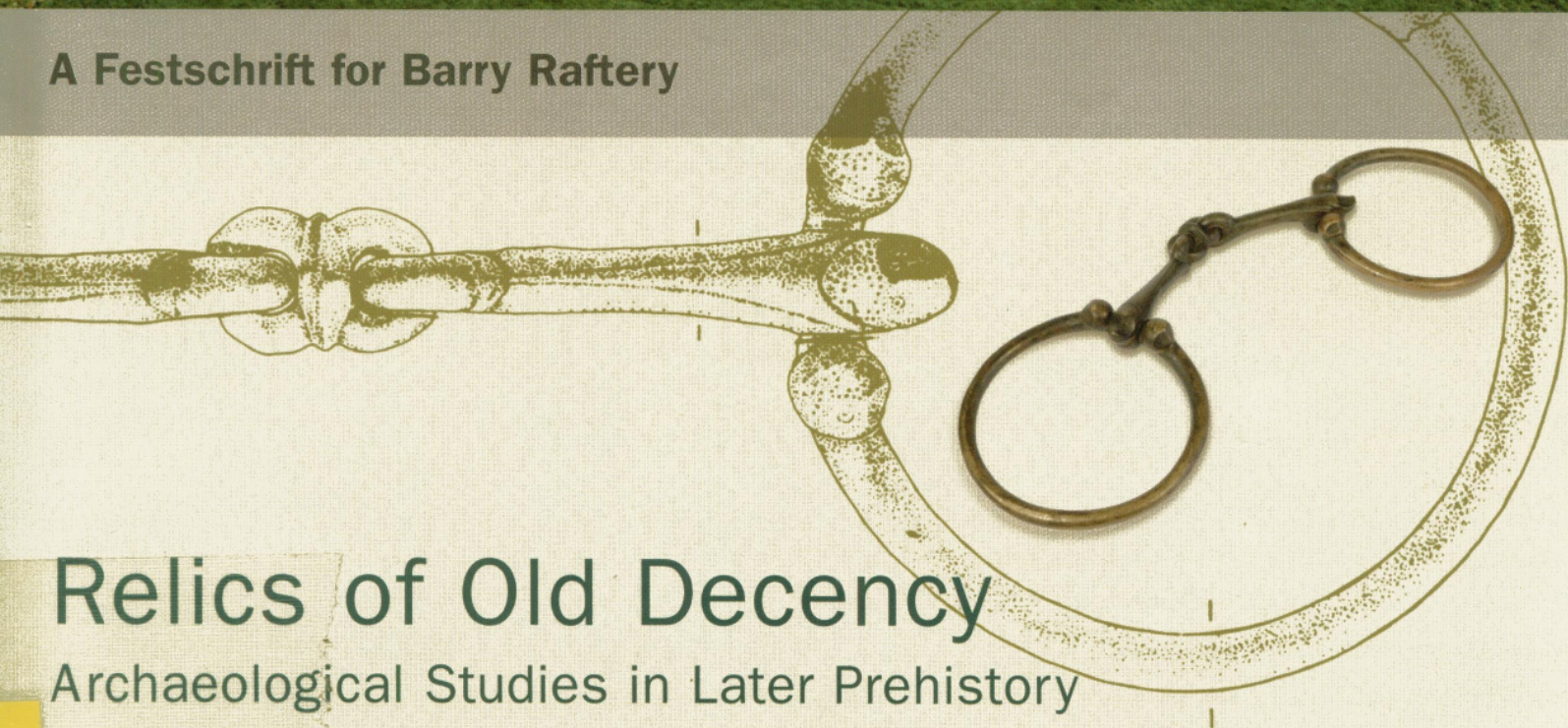




A Festschrift for Barry Raftery



Relics of Old Decency

Archaeological Studies in Later Prehistory

Edited by Gabriel Cooney, Katharina Becker, John Coles,
Michael Ryan and Susanne Sievers

Professor Barry Raftery retired as Professor of Celtic Archaeology in the University College Dublin School of Archaeology in 2007. Over his career Professor Raftery has had a major impact on archaeology in Ireland and in Europe. In Ireland he is recognised as the leading scholar on the archaeology of later prehistoric societies. His landmark book on *Pagan Celtic Ireland* (1994) is based on his primary research across a range of topics, from artefactual studies, Celtic art and hillforts to the wooden trackways and related features of this period in Irish raised bogs.

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Relics of Old Decency:
archaeological studies in later prehistory



Relics of Old Decency:
archaeological studies in later prehistory

Festschrift for Barry Raftery

*Edited by Gabriel Cooney, Katharina Becker, John Coles,
Michael Ryan and Susanne Sievers*

Wordwell



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Foreword

Raftery is one of the only names in Irish archaeology that has, so far, a continuous ring for a couple of generations to it. The offspring of noted archaeologists don't seem to enjoy the subject sufficiently to risk embarking on its study as a worthwhile project for their future—or is it that they realise just how hard it can be to make one's name and reputation, to earn a worthwhile living and still rank alongside a similarly named predecessor? But Barry took the risk and, encouraged by his renowned father, Dr Joseph Raftery, won out. And not just in archaeology but also in much the same specialist aspect: the Irish Iron Age.

In writing an appreciation of Dr Joseph Raftery (see *The Irish Times*, 28 May 1992) I outlined the fact that he had obtained his doctorate at the Phillips University in Marburg, Germany, with a major thesis on the Irish early Iron Age, in which he provided the first working model of the chronology of the period. I also remarked that owing to the start of World War II the complete version of his thesis was never published, except in summary form. I commented further, however, that the result of these summaries 'showed that real archaeological study of the Celts in Ireland had taken its first step'.

Tus maith leath na h-oibre, as they say, and with my boss Dr Raftery's agreement I continued my own quiet research into the early Iron Age. I never really managed to find enough time to continue on with it but believe that for a short while I was looked upon by my colleagues as a bit of an expert on the period. But time passed too quickly, the necessary concentration on the material passed me by for the most part, and a friendly rival appeared on the scene—Barry Raftery, who, with more time and less distraction and much greater discipline and concentration than I ever had, became the real expert on the Irish early Iron Age. Although I have kept up a genuine interest in the period, I long ago gave up any pretence to being as knowledgeable about the period as is Barry.

Barry Raftery and I worked well together, I think, and I am privileged to have been involved in a small way in what I believe to be his first two publications. His first was on 'A cross-inscribed stone from Co. Tipperary'—from Cloghinch, Templeberry, near Nenagh—which he and his future wife, Nuala Sproule, also at the time a recent graduate in archaeology, discovered while examining a hillfort in north County Tipperary. The hillfort in question was, I believe, his second publication and his first on the subject of his doctoral thesis, 'A newly-discovered hillfort at Garrangrena Lower, Co. Tipperary'. Both were published in the *North Munster Antiquarian Journal*, Vol. X (1966–7) and Vol. XI (1968) respectively, of which I was the Hon. Editor. I may also have been involved in starting Barry's interest in ancient Irish toghers or timber bog roads—a subject which he has made just as much his own as hillforts—insofar as he accompanied me when I was sent from the National Museum of Ireland to examine and survey the togher at Lullymore, Co. Kildare.

Barry's output is not confined to lecturing and publishing articles in learned journals but shines brightest in several books, books that have become essential reading for all who want to know the wider picture of the Celts in Ireland. He not only produced a catalogue of all the known artefacts which provides research material for all who work on the period, but followed this up with a clear, well-thought-out, general well-illustrated account of the results of such work. For this we are all in Barry Raftery's debt—discussing Celtic Ireland is no longer a risky problem; though it still involves some special pleading, we now have the relevant material published and learnedly and logically argued.

The list of contents of this festschrift demonstrates not only the respect that his colleagues have for Barry but also the extent of his international research and contacts. This volume provides an extraordinary compendium of useful work and will undoubtedly become one of the successes of twenty-first-century archaeological publishing in Ireland. Barry will be very pleased with it—as will we all. With it one can truly wish Barry all the best.

Etienne Rynne

Acknowledgements

Bringing together this volume has been a pleasure because of the enthusiastic support provided by many people and institutions. The editors would like to thank Nuala Raftery, Barry's wife, and his daughters Sara and Tilly and their families for their support for the project from the beginning. Thanks also to Nuala, Sara and Tilly for their feedback on the appreciation, which greatly improved the content.

We owe a debt of gratitude to Nick Maxwell of Wordwell for agreeing to publish the volume and for his commitment to the project. Emer Condit copy-edited the papers with her usual efficiency and consistency, and thanks to Aisling Flood for typesetting and associated administration.

We are delighted to acknowledge financial support from the following institutions, without which publication of the festschrift would not have been possible: the Office of Public Works, the Heritage Council, the National University of Ireland, the National Museum of Ireland, the National Monuments Service, Department of the Environment, Heritage and Local Government, the Chester Beatty Library, the Musée Cantonal d'Archéologie et d'Histoire de Lausanne, the College of Arts and Celtic Studies and the School of Archaeology, University College Dublin.

Great thanks are due to all those listed in the *tabula gratulatoria*, who provided important support for the volume.

The UCD School of Archaeology was the 'home base' for the planning and preparation of the book. The editors are very grateful for the support and facilities provided by the School. It is a pleasure to acknowledge in particular the many hours of work and commitment that Conor McDermott gave to the illustrations, which has greatly added to the volume.

Finally, it is a pleasure to thank all the contributors to the volume for their patience and for the high quality, range and diversity of their contributions, which are all focused on topics and issues in which Barry has a keen interest. We trust that he will see this as a fitting tribute to the breadth and depth of his own scholarship and to his role as friend and mentor, which has been so important in providing support for very many friends, colleagues and students.

Tabula gratulatoria

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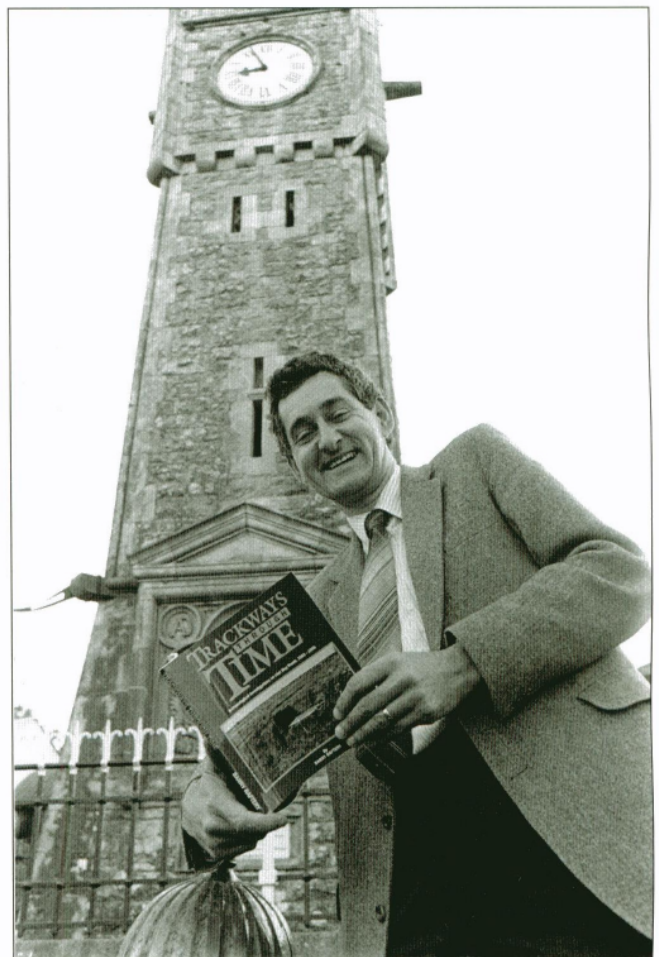
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Barry Raftery—an appreciation

Barry Raftery retired as Professor of Celtic Archaeology in the UCD School of Archaeology at the end of August 2007. Over his career Barry has had a major impact on archaeology in Ireland and in Europe. In Ireland he is recognised as the leading scholar on the archaeology of later prehistoric societies. His early postgraduate work was on hillforts and he published the first overview of the form and roles of this site type in Ireland. This also led to the excavation of the critically important site of Rathgall, Co. Wicklow, which he is currently bringing to publication. His doctoral research was on the Irish Iron Age and this resulted in two major books, *A catalogue of Irish Iron Age antiquities* (1983) and *La Tène in Ireland: problems of origin, development and chronology* (1984). Barry always thinks at a European level and this is reflected across his writing, for example in his work on *Hollow, two-piece metal rings in La Tène Europe* (1988). He recognises the need to see early societies in Ireland in a European context, and he has made a very significant contribution to our understanding of later prehistoric societies in Europe and to the study of the Celts. This is reflected in the major role that he played in the international Celtic exhibition in Venice in the early 1990s, the resulting large volume on *The Celts* (1991), of which he was an editor, and his own landmark book on *Pagan Celtic Ireland* (1994).

From the mid-1980s Barry added a new dimension to his research and teaching through a programme of innovative research on wooden trackways and associated features in Irish raised bogs. This began with the excavation of a very large second-century BC trackway at Corlea, Co. Longford, and then expanded to the direction of an extensive research programme of survey and excavation over several years. The results were published in 1996 as *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–91*. This work led to the realisation of the importance of the trackways and their study as a source of archaeological and palaeoenvironmental information and to the setting up of the Irish Archaeological Wetland Unit (1988) with a remit to record these and other features. His efforts have borne remarkable fruit in scholarship and in community outreach. An interpretative centre has been built around part



Pl. 1—A delighted Barry at the launch of *Trackways through time* in 1990 in Keenagh, Co. Longford, where the team was based for many seasons of excavation of Corlea and other sites in the region (unattributed photograph from Barry's files).

of the major trackway at Corlea that was the initial stimulus of this research programme.

Barry's work has been recognised by his peers both in Ireland and internationally. He was appointed to the chair of Celtic Archaeology in University College Dublin in 1997, the fifth holder of this prestigious position. He was Visiting Professor of European Prehistory in Ludwig-Maximilian Universität, Munich, in 1969–70 and was subsequently invited to take up Visiting Professorships at Kiel University (1991) and the University of Vienna (1997). He has been



Pl. 2a and b—Young Barry at work on his father's excavation at Lough Gara, probably in the year 1954. Barry is equipped for all eventualities, and for his own account of his time on the excavation see Raftery 2003 in *Lost and found* (photo: J. Raftery).



Pl. 3—Annual inaugural lecture of the Archaeological Society in UCD by Professor Christopher Hawkes in 1966, with Barry listening intently in the front row, third from left. Albert Glaholm is manning the slide projector. Barry's father was one of the founding members of the society in 1941 (photograph from the archive of the UCD Archaeological Society).



Pl. 4—Michael Ryan and Barry at Rathcoran, Baltinglass, Co. Wicklow, on a Prehistoric Society visit to Ireland in 1980 (photo: B. Coles).



Pl. 5—The bog people. Bryony Coles and Barry examine the site of Cloonbony corduroy road (2850–2470 cal. BC) near Lanesborough, Co. Longford, prior to excavation in 1988 (photo: J. Coles).



Pl. 6—Newspaper photograph of the first excavation team at Corlea 1 Iron Age road, Co. Longford, in 1985 (from left to right): Barry O'Reilly, Albert Siggins and Sara and Barry Raftery (unattributed clipping from Barry's files).

the recipient of numerous research awards. For example, in the period 1981–3 he held a prestigious Alexander von Humboldt Research Fellowship, based at the Philipps-Universität, Marburg (where he had also held a DAAD scholarship from 1969 to 1971). Barry held a guest professorship for the winter semesters 1988–9 and 1989–90 in Ludwig-Maximilian Universität, Munich.

Professor Raftery has been elected to membership of several learned societies, including the Royal Irish Academy (1988) and the German Archaeological Institute (1988). In that year he was also elected as the O'Donnell Fellow by Jesus College, Oxford. He was elected a Fellow of the Society of Antiquaries of London in 1995. In 1997 he was specially invited by the Japanese Ministry for Cultural Affairs to undertake a lecture and study tour. Barry has played a very active role in the Royal Irish Academy, serving as Senior Vice-President (1994–5), as chair of the National Committee for Archaeology (2000–4) and as chair of the committee for the publication of the Dublin excavations (2000–6). He was a member of the Council (1996–2000) and then the Directorate (2000–5) of the Discovery Programme. Not surprisingly, his colleagues on these various committees remember his wisdom and that he was always there to help with advice, timely comments and to ask pertinent questions. For the period 1996–9 he served as a member of the executive board of the European Association



Pl. 7—Barry (on ladder) preparing to take photographs of the excavations of Bronze Age trackways Derryoghil 25, 26 and 27, Co. Longford, in 1988 (photo: J. Coles).

of Archaeologists, a position to which he was elected by members of the Association.

During his time as Head of the then Department of Archaeology in UCD (1997–2001) Barry very successfully led a major programme of change and development in the department. This was reflected in the undergraduate and postgraduate teaching programmes, the appointment of new staff members and the expansion of the department into new areas of research. There was a notable expansion in the number of students taking archaeology, but in terms of research most importantly at the Ph.D level, making the department the leading centre for postgraduate archaeological research in Ireland. In his leadership role at a national level he played a key role in the funding and development of archaeological research and led initiatives in critical areas, notably the publication of the backlog of unpublished excavations.

Barry has a very extensive list of publications. He has a widely acknowledged ability to write to the highest standards,

both for the requirements of the scientific community interested in his work and for a wider public audience. He has always been in great demand as a lecturer and has enthused students with a love of archaeology, its excitement and problems from the time he began teaching as a part-time lecturer in the Department of Archaeology in UCD in 1967. Reference was made above to his pioneering work in wetland archaeology in Ireland. To train students in the specialised techniques and the multidisciplinary approach needed for wetland archaeology, a training course was set up through the ERASMUS programme in 1988 with the universities of Leiden, Aarhus and Exeter. As a development of this, from 1988 to 1993, with funding from the European Science Foundation, he organised a training programme for students in all aspects of archaeological research and excavation in wetland. This has produced a cohort of archaeologists who are now leading exponents of wetland archaeology in Ireland and others working in a diversity of fields whose formation training was through this programme.



Pl. 8—Barry standing on Cairn H, Loughcrew, 1980 (photo: B. Coles).

We have tried to capture here a sense of some of Barry's achievements, but what is most important in all of this is the man himself, and readers who know Barry will smile and remember him best for his friendship, generosity, good humour, engaging manner and wide interests. He has a store of sayings and phrases that enliven any conversation, and one of these has been taken as the title of this Festschrift. He is proud of his entry in *Who's Who in the World* at a time in the 1990s when he was one of the few Irish people listed, and he gave his spare-time activity as 'doing nothing'! In the Department of Archaeology there was a well-known character, a photographer of great skill called Albert Glaholm, whose employment in UCD went back to the 1950s. Albert was a great fan of Barry's and recognised his many human qualities. At times of university or political excitement they would both shake their heads and smilingly say to each other about life, 'It is a great game played slowly'!

Barry was a keen sportsman, a dedicated runner and sometime rugby player. He had to curtail his running in his middle years because of arthritis but continues his close interest in sports, particularly following the varying fortunes of the Irish rugby and soccer teams! Above all else Barry is a family man, tremendously proud of his father, Joseph, and his achievements and career in the National Museum of Ireland. He took loving care of his mother, Lotte, in her later years and was delighted that he was able to see her every day. The loves of his life are his wife Nuala, their daughters Sara and Tilly and their families. He enjoys his role as paterfamilias, doting over his granddaughters. Barry has borne his own illness with tremendous courage and fortitude, and it is a pleasure on behalf of all the contributors and his many friends and colleagues to offer him this Festschrift as a sign of our very deep regard and affection for him.

The track record

- 1967 Raftery, B. 1967 A cross-inscribed stone from Co. Tipperary. *North Munster Antiquarian Journal* 10 (2), 219–21.
- 1968 Raftery, B. 1968 A newly-discovered hill fort at Garrangrena Lower, Co. Tipperary. *North Munster Archaeological Journal* 11, 3–6.
- 1969 Raftery, B. 1969 Freestone Hill, Co. Kilkenny: an Iron Age hillfort and Bronze Age cairn. *Proceedings of the Royal Irish Academy* 68C, 1–108.
- Raftery, B. 1969 A late ogham inscription from Co. Tipperary. *Journal of the Royal Society of Antiquaries of Ireland* 99 (2), 161–4.
- 1970 Raftery, B. 1970 A decorated strap-end from Rathgall, Co. Wicklow. *Journal of the Royal Society of Antiquaries of Ireland* 100, 200–11.
- Raftery, B. 1970 The Rathgall hillfort, County Wicklow. *Antiquity* 44, 51–64.
- 1971 Raftery, B. 1971 Rathgall, Co. Wicklow: 1970 excavations. *Antiquity* 45, 296–8.
- 1972 Raftery, B. 1972 A burial mound at Baunogenasraid, Co. Carlow. *Carloviana*, 12–14.
- Raftery, B. 1972 Irish hill-forts. In C. Thomas (ed.), *The Iron Age in the Irish Sea province*, 37–58. CBA Research Report 9. London. Council for British Archaeology.
- Raftery, B. 1972 Some late La Tène glass beads from Ireland. *Journal of the Royal Society of Antiquaries of Ireland* 102, 14–18.
- Raftery, B. 1972 *Stone Age Ireland*. Irish Environmental Library Series. Dublin. Folens.
- Raftery, B. 1972 *Bronze Age Ireland*. Irish Environmental Library Series. Dublin. Folens.
- Raftery, B. 1972 *Iron Age Ireland*. Irish Environmental Library Series. Dublin. Folens.
- 1973 Raftery, B. 1973 Rathgall: a Late Bronze Age burial in Ireland. *Antiquity* 47, 293–5.
- 1974 Raftery, B. 1974 A decorated Iron Age horse-bit fragment from Ireland. *Proceedings of the Royal Irish Academy* 74C, 1–10.
- Raftery, B. 1974 A prehistoric burial mound at Baunogenasraid, Co. Carlow. *Proceedings of the Royal Irish Academy* 74C, 277–312.
- 1975 Raftery, B. 1975 A Late Bronze Age bar toggle from Ireland. *Archaeologia Atlantica* 1, 83–9.
- 1976 Raftery, B. 1976 Dowris, Hallstatt and La Tène in Ireland: problems of the transition from bronze to iron. In S. J. De Laet (ed.), *Acculturation and continuity in Atlantic Europe, mainly during the Neolithic period and the Bronze Age*, 189–97. Fourth Atlantic Colloquium. Brügge. Ghent.
- Raftery, B. 1976 Rathgall and Irish hillfort problems. In D. W. Harding (ed.), *Hillforts. Later prehistoric earthworks in Britain and Ireland*, 339–57. London. Academic Press.
- Raftery, B. 1976 The hillfort at Belmont in Co. Galway. *Journal of the Galway Archaeological and Historical Society* 35, 89–95.
- 1977 Raftery, B. 1977 A much-repaired horse-bit pair from Iron Age Ireland. In O.-H. Frey (ed.), *Festschrift zum 50 jährigen Bestehen des Vorgeschichtlichen Seminars Marburg*, 299–308. Marburger Studien zur Vor- und Frühgeschichte 1. Gladenbach. Kempkes.

- Raftery, B. 1977 The Irish Iron Age: problems of origin, development and chronology. Unpublished Ph.D thesis, University College Dublin.
- 1978 Raftery, B. 1978 Excavations at Killycluggin, County Cavan. *Ulster Journal of Archaeology* 41, 49–54.
- 1979 Raftery, B. 1979 The Irish Iron Age: a summary. *The Archaeological Advertiser* (Autumn 1979), 14–20.
- 1980 Raftery, B. 1980 Iron Age cauldrons in Ireland. *Archaeologia Atlantica* 3, 57–80.
- Raftery, B. 1980 Übertagende Buchkunst irischer Mönche—the Book of Kells. *Szenemagazin* (Sonderdruck für die Ausstellung) (1980), 201–21. Salzburg.
- 1981 Raftery, B. 1981 Iron Age burials in Ireland. In D. Ó Corráin (ed.), *Irish antiquity: essays and studies presented to Professor M. J. O’Kelly*, 173–204. Cork. Tower Books. [Reprinted 1994, Dublin, Four Courts Press.]
- 1982 Raftery, B. 1982 Knobbed spearbutts of the Irish Iron Age. In B. G. Scott (ed.), *Studies on early Ireland: essays in honour of M. V. Duignan*, 75–92. Belfast. Association of Young Irish Archaeologists.
- Raftery, B. 1982 Two recently discovered bronze shields from the Shannon Basin. *Journal of the Royal Society of Antiquaries of Ireland* 112, 5–17.
- 1983 Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Philipps-Universität, Marburg.
- 1984 Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Philipps-Universität, Marburg.
- 1985 Raftery, B. 1985 Navan Fort enquiry. *Journal of the Royal Society of Antiquaries of Ireland* 115, 152–5.
- 1986 Raftery, B. 1986 Three bronze rings of Continental La Tène type from Ireland. In O.-H. Frey (ed.), *Gedenkschrift für Gero von Merhart zum 100. Geburtstag*, 249–66. Marburger Studien zur Vor- und Frühgeschichte 7. Marburg/Lahn. Hitzeroth Verlag.
- Raftery, B. 1986 A wooden trackway of Iron Age date in Ireland. *Antiquity* 60, 50–3.
- Raftery, B. 1986 Prehistoric trackways in Co. Longford. *Living Heritage* 3 (1), 5.
- Raftery, B. 1986 Wooden trackways in Corlea Bog, Co. Longford, Ireland. *NewsWARP* 1, 6–7.
- 1987 Raftery, B. 1987 Ancient trackways in Corlea Bog, Co. Longford. *Archaeology Ireland* 1 (2), 60–4.
- Raftery, B. 1987 The Loughnashade horns. *Emania* 2, 21–4.
- Raftery, B. 1987 Anneaux creux formés de deux plaques de metal en Europe laténienne. In D. Vitali (ed.), *Celti ed Etruschi nell’Italia centrosettentrionale dal V secolo a.C. alla rommanizzazione. Atti del colloquio internazionale, Bologna, 12–14 aprile 1985*, 521–6. Bologna. University Press.
- Raftery, B. 1987 La Tène art in Ireland. In M. Ryan (ed.), *Ireland and Insular art*, 12–18. Dublin. Royal Irish Academy.
- Raftery, B. 1987 Trackways in Corlea Bog, Co. Longford. In C. O’Connell (ed.), *The IPCC guide to Irish peatlands*, 48. Dublin. Irish Peatland Conservation Council.
- Raftery, B. and Henderson, J. 1987 Some glass beads of the later Bronze Age in Ireland. In C. Dobiat, H. Matthäus, B. Raftery and J. Henderson (eds), *Glasperlen der vorrömischen Eisenzeit II nach Unterlagen von Th. E. Haevernich (X)*, 39–52. Marburger Studien zur Vor- und Frühgeschichte 9. Marburg/Lahn. Hitzeroth Verlag.

- 1988 Raftery, B. 1988 *Hollow, two-piece metal rings in La Tène Europe*. Marburger Studien zur Vor- und Frühgeschichte 11. Marburg/Lahn. Hitzeroth Verlag.
- Raftery, B. 1988 New light on old tracks. *Archaeology Ireland* 2 (1), 1.
- 1989 Raftery, B. 1989 Barbarians to the west. In J. C. Barrett, A. P. Fitzpatrick and L. Macinnes (eds), *Barbarians and Romans in north-west Europe*, 117–52. British Archaeological Reports, International Series 471. Oxford.
- 1990 Raftery, B. 1990 *Trackways through time. Archaeological investigations on Irish bog roads, 1985–1989*. Rush. Headline Publishing.
- Raftery, B. 1990 The Rathgall hillfort. *Ogham* 6, 19–27.
- Raftery, B. and Sherratt, A. 1990 Celtic art in Britain and Ireland. In B. Raftery, P.-M. Duval, O.-H. Frey, G. Kaenel, V. Kruta, M. Ryan, A. Sherratt and M. Szabó (eds), *Celtic art*, 101–26. Paris. Flammarion/UNESCO.
- 1991 Raftery, B. 1991 Irland und der Kontinent während der Latènezeit. In O.-H. Frey, H. Roth and C. Dobiat (eds), *Marburger Kolloquium 1989. Wolfgang Dehn zum 80. Geburtstag*, 49–64. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 7. Buch am Erlbach. Marie Leidorf.
- Raftery, B. 1991 Zur Frage irisch-iberischer Beziehungen während der Eisenzeit. In O.-H. Frey (ed.), *Festschrift für Wilhelm Schüle zum 60. Geburtstag*, 259–67. Internationale Archäologie 2. Buch am Erlbach. Marie Leidorf.
- Raftery, B. 1991 The Celtic Iron Age in Ireland: problems of origin. *Emania* 9, 28–32.
- Raftery, B. 1991 Horse and cart in Iron Age Ireland. *Journal of Indo-European Studies* 19 (1–2), 49–69.
- Raftery, B. 1991 The Early Iron Age. In M. Ryan (ed.), *The illustrated archaeology of Ireland*, 107–12. Dublin. Townhouse.
- Raftery, B. 1991 I signori dei Metalli: Gli artigiani delle isole britanniche. *I Celti: La Stampa, Supplemento speciale* (March 1991), 68–70. Turin.
- Raftery, B. 1991 The Celts: the first Europe. *Minerva* (July/August 1991), 24–30.
- Raftery, B. 1991 The Island Celts. In O.-H. Frey, V. Kruta, B. Raftery and M. Szabo (eds), *The Celts*, 555–72. Milan. Bompiani.
- Raftery, B. 1991 Bogs. In O.-H. Frey, V. Kruta, B. Raftery and M. Szabo (eds), *The Celts*, 605. Milan. Bompiani.
- Raftery, B. 1991 Tara. In O.-H. Frey, V. Kruta, B. Raftery and M. Szabo (eds), *The Celts*, 612. Milan. Bompiani.
- Raftery, B. 1991 Dun Aengus, Inishmore. In O.-H. Frey, V. Kruta, B. Raftery and M. Szabo (eds), *The Celts*, 613. Milan. Bompiani.
- Raftery, B. 1991 The Turoe Stone. In O.-H. Frey, V. Kruta, B. Raftery and M. Szabo (eds), *The Celts*, 616. Milan. Bompiani.
- Raftery, B. and Casparie, W.A. 1991 Houten veenwegen in Ierland. *Paleo-Aktueel* 2, 52–7.
- 1992 Raftery, B. 1992 Le Bois de l'âge du Fer en Irlande. In D. Vauillat (ed.), *Le Berry et le Limousin à l'âge du Fer*, 59–67. Actes du XIII Colloque de l'AFEAF. Guéret.
- Raftery, B. 1992 Recent developments in Irish wetland research. In B. Coles (ed.), *The wetland revolution in prehistory*, 29–36. Exeter. WARP/The Prehistoric Society.
- Raftery, B. 1992 Irische Bohlenwege. *Archäologische Mitteilungen aus Nordwestdeutschland* 15, 49–68. (Facsimile volume reprinted as M. Fansa (ed.), *Moorarchäologie in Nordwest-Europa: Gedenkschrift für Dr. h.c. Hajo Hayen* (Oldenburg, 1993).)

- 1993 Raftery, B. 1993 The cult of the human head. In C. Newman, 'Sleeping in Elysium', *Archaeology Ireland* 7 (3), 20–3.
- Raftery, B. 1993 Fahren und Reiten in Irland in der Eisenzeit: Die archäologischen Belege. In H. L. C. Tristram (ed.), *Studien zur Táin Bó Cuailnge*, 173–91. Tübingen. Gunter Narr Verlag.
- Raftery, B. 1993 La statuaire en bois et en pierre de l'âge du fer Irlandais. In J. Briard and A. Duval (eds), *Les Représentations humaines du néolithique à l'âge du fer. Actes du 115e congrès national des sociétés savants, Avignon 1990*, 253–64. Paris. Editions du Comité des Travaux Historiques et Scientifiques.
- Raftery, B. 1993 Celtas, cultura y colonización: reflexiones sobre la Edad del Hierro en Irlanda. In M. Almagro Gorbea and G. Ruiz Zapatero (eds), *Los Celtas: Hispania y Europa*, 91–120. Actas del Escorial. Madrid. University of Complutense.
- 1994 Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London and New York. Thames and Hudson.
- Raftery, B. 1994 Reflections on the Irish Scabbard Style. In C. Dobiat (ed.), *Festschrift für Otto Hermann Frey zum 65. Geburtstag*, 475–92. Marburger Studien zur Vor- und Frühgeschichte 16. Marburg. Hitzeroth.
- Raftery, B. and Moloney, A. 1994 Irish wetlands developments, 1993–1994. *NewsWARP* 16, 28–9.
- 1995 Raftery, B. 1995 Pre- and protohistoric Ireland: problems of continuity and change. *Emania* 13, 5–9.
- Raftery, B. 1995 Annaghcorrib 1, Garryduff Bog, Co. Galway. *Irish Archaeological Wetland Unit Transactions* 4, 39–48.
- Raftery, B. 1995 Carrickfin—archaeology. In P. Wilson (ed.), *Irish Association for Quaternary Studies Field Guide 19*, 78–81. Dublin. Irish Association for Quaternary Studies.
- Raftery, B. 1995 Ireland: a world without the Romans. In M. Green (ed.), *The Celtic world*, 636–53. London. Routledge.
- Raftery, B. 1995 The conundrum of Irish Iron Age pottery. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age: essays on fieldwork and museum research presented to Ian Mathieson Stead*, 149–56. Oxford. Oxbow.
- 1996 Raftery, B. 1996 Iron Age studies in Ireland: some recent developments. In T. Champion and J. R. Collis (eds), *The Iron Age in Britain and Ireland: recent trends*, 156–61. Sheffield. J. R. Collis Publications.
- Raftery, B. 1996 Drumanagh and Roman Ireland. *Archaeology Ireland* 10 (1), 17–19.
- Raftery, B. 1996 *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannog Publications.
- 1997 Raftery, B. 1997 Discussion of diagnostic finds. In D. M. Waterman, *Excavations at Navan Fort 1961–1971* (ed. C. J. Lynn), 90–5. Belfast. The Stationery Office.
- Raftery, B. 1997 Implications of the monkey bones from Site B. In D. M. Waterman, *Excavations at Navan Fort 1961–1971* (ed. C. J. Lynn), 121–4. Belfast. The Stationery Office.
- Raftery, B. 1997 Continental comparisons. In D. M. Waterman, *Excavations at Navan Fort 1961–1971* (ed. C. J. Lynn), 221–4. Belfast. The Stationery Office.
- Raftery, B. 1997 Die Kelten in Irland. In T. Bader (ed.), *Die Welt der Kelten*, 97–100. Eberdingen. Keltenmuseum Hochdorf/Enz.
- 1998 Raftery, B. 1998 Observations on the Iron Age in Munster. *Emania* 17, 21–4.
- Raftery, B. 1998 Knobbed spearbutts revisited. In

- M. Ryan (ed.), *Irish antiquities: essays in memory of Joseph Raftery*, 97–109. Bray. Wordwell.
- Raftery, B. 1998 Kelten und Keltizismus in Irland: Die archäologischen Belege. In A. Müller-Karpe, H. Brandt, H. Jöns, D. Krauß and A. Wigg (eds), *Studien zur Archäologie der Kelten, Römer und Germanen in Mittel- und Westeuropa. Alfred Haffner zum 60. Geburtstag*, 465–75. Rahden/Westfalen. Marie Leidorf.
- Raftery, B. 1998 Der Hohlblechring aus Grab 6 von Münsingen-Rain: Amulett oder Schmuck? In F. Müller (ed.), *Münsingen-Rain, ein Markstein der keltischen Archäologie. Funde, Befunde und Methoden im Vergleich. Akten. Internationales Kolloquium „Das keltische Gräberfeld von Münsingen-Rain 1906–1996“, Münsingen/Bern, 9.–12. Oktober 1996*, 61–70. Schriften des Bernischen Historischen Museums 2. Bern.
- Raftery, B. 1998 Dispelling the Celtic mists. *Times Literary Supplement* (12 June 1998), 9.
- 1999 Raftery, B. 1999 The milling fields. In B. Coles, J. Coles and M. S. Jørgensen (eds), *Bog bodies, sacred sites, and wetland archaeology*, 191–201. WARP Occasional Paper 12. Exeter.
- Raftery, B. 1999 Une voie en bois de l'âge du fer irlandais. In B. Chaume, J.-P. Mohen and P. Périn (eds), *Archéologie des Celtes: mélanges à la mémoire de René Joffroy*, 229–306. Montagnac. Monique Mergoïl.
- Raftery, B. 1999 Paths, tracks and roads in early Ireland: viewing the people rather than the trees. In A. F. Harding (ed.), *Experiment and design: archaeological studies in honour of John Coles*, 170–82. Oxford. Oxbow.
- 2000 Raftery, B. 2000 A bit too far: Ireland's Transylvanian link in the Later Iron Age. In A. P. Smyth (ed.), *Seanchas: studies in early and medieval Irish archaeology and literature in honour of Francis J. Byrne*, 1–11. Dublin. Four Courts Press.
- 2001 Raftery, B. 2001 Celts and 'Celts'. In D. Büchner and das Freiburger Institut für Paläowissenschaftliche Studien (eds), *Studien in memoriam Wilhelm Schüle*, 376–8. Rahden/Westfalen. Marie Leidorf.
- Raftery, B. 2001 Foreword. In B. Raftery and J. Hickey (eds), *Recent developments in wetland research*. Department of Archaeology, University College Dublin, Monograph Series Vol. 2. Dublin.
- Raftery, B. 2001 La Edad del Hierro en Irlanda y la fachada atlántica. In M. Almagro-Gorbea, M. Mariné and J. R. Álvarez-Sanchís (eds), *Celtas y Vettones*, 63–71. Ávila. Diputación Provincial de Ávila.
- Raftery, B. 2001 Foreword. In B. Raftery and J. Twist (eds), *Philip's Atlas of the Celts*, 7. London. George Philip and Son.
- 2003 Raftery, B. 2003 The archaeology of Irish bogs. In M. Otte (ed.), *Wetlands of Ireland: distribution, ecology, uses and economic value*, 202–9. Dublin. UCD Press.
- Raftery, B. 2003 La Tène art. In P. Bogucki and P. J. Crabtree (eds), *Ancient Europe 8000 BC–AD 1000. Encyclopedia of the barbarian world*, 184–91. New York. Charles Scribner's Sons/The Gale Group.
- Raftery, B. 2003 [Entries on] Celtic Art; Corlea Bog; Hill-forts; Iron Age; Rathgall, Co. Wicklow; Turoe Stone. In Brian Lalor (ed.), *The Encyclopaedia of Ireland*, 177–8, 239–40, 493, 559, 916, 1084–5. Dublin. Gill and Macmillan.
- Raftery, B. 2003 Once upon a time in the West. In J. Fenwick (ed.), *Lost and found: discovering Ireland's past*, 139–50. Dublin. Wordwell.
- Raftery, B. 2003 [Sections on] Crooked Wood, Co. Kilkenny; Earthworks; Dún Aonghasa, Inishmore, Aran, Co. Galway; Dún Eochla, Inishmore, Aran, Co. Galway; Knowth, Co. Meath; Skellig Michael, Co. Kerry; Tara, Co. Meath. In G. Gerster (ed.), *Flug in die Vergangenheit: Archäologische Stätten in*

Flugbildern, 95, 108, 93, 147, 171, 98. Milan. Arti Graffiche.

- 2004 Raftery, B. 2004 Pit 119: Rathgall, Co. Wicklow. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metal: essays in honour of George Eogan*, 83–90. Oxford. Oxbow.

Raftery, B. 2004 Ancient tracks. In B. Fagan (ed.), *The seventy great inventions of the ancient world*. London. Thames and Hudson.

Raftery, B. 2004 Hillforts. In P. Bogucki and P. J. Crabtree (eds), *Ancient Europe 8000 BC–AD 1000. Encyclopedia of the barbarian world*, vol. 2, 160–4. New York. Charles Scribner's Sons/The Gale Group.

- 2005 Raftery, B. 2005 Iron-Age Ireland. In D. Ó Cróinín (ed.), *A New History of Ireland 1: prehistoric and early Ireland*, 134–81. Oxford University Press.

- 2006 Raftery, B. 2006 The insular Celts. In D. Vitali (ed.), *Celtes et Gaulois dans l'histoire, l'historiographie et l'idéologie moderne. Celtes et Gaulois, l'Archaeologie face à l'histoire*, 107–27. Collection Bibracte 12/1. Glux-en-Glenne.

Raftery, B. 2006 Celtic Ireland: problems of language, history and archaeology. *Acta Archaeologica Academiae Scientiarum Hungaricae* 57, 273–9.

Raftery, B. 2006 Ireland and Scotland in the Iron Age. In W. Gillies and D.W. Harding (eds), *Celtic Connections 2: Proceedings of X International Congress of Celtic Studies, Edinburgh 1995*, 181–9. Department of Archaeology, University of Edinburgh.

Raftery, B. 2006 *L'Irlande Celtique: avant l'ère chrétienne*. Paris. Editions Errance.

- 2007 Raftery, B. 2007 The medieval settlement at Rathgall, County Wicklow. In C. Manning (ed.), *From ringforts to fortified houses: studies on castles and other monuments in honour of David Sweetman*, 95–106. Wordwell. Bray.

Forthcoming

Raftery, B. (forthcoming) The reliability of the alleged early Lough Gara iron. In A. Reynolds and L. Webster (eds), *Medieval art and archaeology in the northern world: studies in honour of James Graham-Campbell*. Leiden. Brill.

Raftery, B. (forthcoming) *Rathgall, Co. Wicklow*.

Raftery, B. (forthcoming) Glass beads from the Iron Age burials at Knowth. In G. Eogan (ed.), *Excavations at Knowth 5: The archaeology of Knowth in the first and second millennia AD*. Dublin. Royal Irish Academy.

Raftery, B. (forthcoming) [Entries on] Bann; Black Pig's Dyke; Corlea; Dún Ailinne; Dún Aonghasa; Irland; Moorweg; Navan Fort; Ring-barrow; Tara; Turoe. In S. Sievers, O. H. Urban and P. C. Ramsel (eds), *Lexikon zur keltischen Archäologie*. Wien. Österreichische Akademie der Wissenschaften.

Raftery, B. (forthcoming) Knobbed spearbutt from Carrickfergus, Co. Antrim. Forthcoming as separate contribution in report of the excavations at Carrickfergus, Co. Antrim. Belfast. HMSO.

Edited books:

- 1990 Raftery, B., Duval, P.-M., Frey, O.-H., Kaenel, G., Kruta, V., Ryan, M., Sherratt, A. and Szabó, M. (eds) 1990 *L'art celtique*. Paris. Flammarion/UNESCO.

Raftery, B., Duval, P.-M., Frey, O.-H., Kaenel, G., Kruta, V., Ryan, M., Sherratt, A. and Szabó, M. (eds) 1990 *Celtic art*. Paris. Flammarion/UNESCO.

- 1991 Moscati, S., Frey, O.-H., Kruta, V., Raftery, B. and Szabó, M. (eds) 1991 *The Celts*. London. Thames and Hudson.

Moscati, S., Frey, O.-H., Kruta, V., Raftery, B. and Szabó, M. (eds) 1991 *I Celti: exposition, Venezia, Palazzo Grassi, 1991*. Milan. Bompiani.

- 1995 Raftery, B., Megaw, V. and Rigby, V. (eds) 1995 *Sites and sights of the Iron Age: essays on fieldwork and museum research presented to Ian Mathieson Stead*. Oxford. Oxbow.
- 2001 Raftery, B. and Hickey, J. (eds) 2001 *Recent developments in wetland research*. Department of Archaeology, University College Dublin, Monograph Series 2. Dublin.
- Raftery, B. and Twist, J. (eds) 2001 *Philip's Atlas of the Celts*. London. George Philip and Son.
- 2004 Roche, H., Grogan, E., Bradley, J., Coles, J. and Raftery, B. (eds) 2004 *From megaliths to metal: essays in honour of George Eogan*. Oxford. Oxbow.

1. Wetlands

A chronological glimpse into the later first millennium BC

Mike Baillie and David Brown

Introduction

This paper in honour of Professor Barry Raftery has a simple objective. What can scientists provide as a background—let's call it loosely a chrono-environmental background—to the period that spans the late Bronze Age and early Iron Age? This period is notorious in Ireland for major gaps in archaeological evidence. Most striking is the near-total lack of datable, archaeological oak timbers from almost the whole of the period from 40 BC to around AD 250, a period that includes a major civilisation in neighbouring Britain. It is widely held that those four centuries represent an archaeological gap; there are essentially no significant sites and few artefacts, and even compilations of radiocarbon dates thin across the period. Why, for over four centuries, was no one putting substantial oak timbers into contexts where they would survive for archaeologists to find them? In this paper we'll consider aspects of the early Iron Age and see what independent observations are available from sources such as tree-rings and ice cores. We will present some speculations on how global-scale environmental events may have influenced Ireland in the last centuries of the first millennium BC.

A framework for understanding later Irish prehistory

If someone were casually to ask what trees can tell us about the wider period between 1000 BC and AD 500, the initial response would be to draw attention to Fig. 1. It is evident in the figure that there is a large cluster of tree-ring dates for wetland archaeological sites across the tenth century BC (a), another between 150 and 95 BC (b), and a third post-AD 540 (c). Those clusters were clearly evident as early as the mid-1980s. Since then, as more and more sites have been investigated and dated, the existence of clusters (a), (b) and (c) has been reinforced. Gradually, however, some sub-clusters, such as (d), (e) and (f), have begun to crystallise out. What we can say about this emerging picture is that past human activity that involved the placement of oak timbers

in contexts wherein they could survive has not been uniform through time. As the recovery process is essentially random—given that archaeologists seldom know the date of a site before it is investigated—the picture of activity represented by Fig. 1 should be an accurate summary of what is out there in the ground. This fact makes the clear gaps in the record, especially that following the first century BC, all the more striking.

Apart from the identification of Irish site clusters, we also know that there are fairly unpleasant environmental downturns, indicated by growth responses in oak trees. We know that the long prehistoric bog oak chronologies seem to end around 200 BC, so something may have happened around that time to make bog surfaces hostile to the growth and preservation of oak trees. Although ice-core records are not the first thing on the minds of most archaeologists, they do exist and the environmental information they contain cannot be ignored. Each year snow falling in central Greenland seals in the layer of snow from the previous year. Over time these annual snow layers are compressed into layers of ice. This process has been going on for at least 100,000 years, and scientists have cored through the resultant 3,000m-thick ice sheet to produce what are essentially annual records of ice chemistry for many thousands of years. For those not familiar with ice-core work, and to give a hint of the scales involved, in the American GISP2 core the start of the current Holocene era occurs about 470m down; even at this depth, the annual layers of ice from 2,000 years ago are still around 20cm thick. So if one is interested, it is possible to analyse ice layers from the present day back for the whole of the Holocene, and produce data on stable isotopes, chemistry and dust for essentially every year. It has to be stated that ice cores are not exactly like tree-rings in that there are slight errors in the chronological estimates associated with the layers; even so, they are dated to within a decade or so in real time, with the ultimate possibility that they may eventually be dated to annual precision.

Overall, various sources of information allow us to inject some precisely dated events into the last centuries of the first millennium BC. The dates provide a framework within

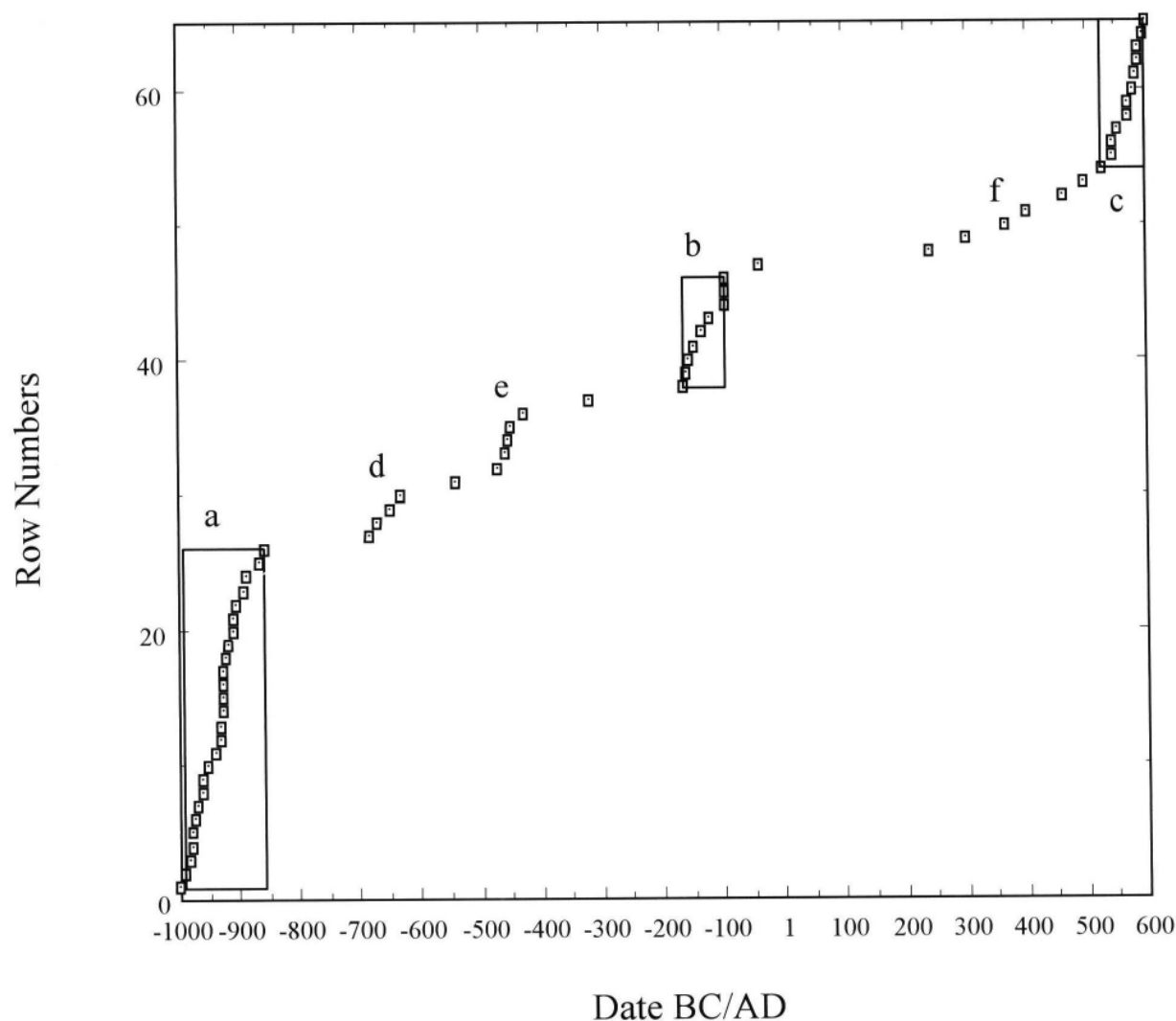


Fig. 1—Irish archaeological sites dated by dendrochronology, showing clear clusters (a, b, c) and developing clusters (d, e, f). The gap between c. 40 BC and AD 250 is clearly evident.

which any ultimate understanding of this period of Irish prehistory must fit.

Dates from dendrochronology I: c. 200 BC

When the oak chronology was being constructed a serious problem arose. It proved possible, working from the present, to build an Irish oak chronology back to 13 BC. While that work was going on, long bog-oak chronologies were constructed from the ring patterns of literally thousands of bog-oak sections. There came a point in time, around 1980,

when a chronology back to 5000 BC was almost complete. What workers in Belfast confronted was a chronology with two remaining gaps. We know with hindsight that the gaps were at 948 BC (a single-year gap) and between 229 BC and 13 BC. For completeness, the section of chronology from 5289 BC to 949 BC was known as 'The Long Chronology', while the section from 947 BC to 229 BC was known as 'Garry Bog II'. It was to take a lot of work, and some luck, to bridge the gaps between these long sections of chronology and weld the whole into a single, continuous 7,272-year chronology (Baillie 1995).

The main issue was the 229–13 BC bog-oak gap. Why

did this gap exist? What had caused oaks, at Garry Bog in particular, to die out around 200 BC? This question is the more interesting because Garry Bog had supported populations of oak trees, growing on the surface of the bog, for almost five millennia. Why did bog trees die out around 200 BC? It turned out that there were hints from elsewhere. In Germany it was observed that there was a concentration of oaks washed into German rivers (and preserved in the gravels) starting at almost exactly 200 BC; this depositional phase was to last for some 350 years (Baillie 1995). In addition, Leuschner and Delorme (1988) record the demise of bog oaks on two German bogs at around 200 BC, representing a remarkable parallel to the Irish situation. Overall, it appears that at the very least a major environmental change had taken place affecting north-west Europe. These suggestions of wetter conditions would make sense of bog surfaces becoming hostile to tree growth in Ireland. What these changed conditions meant for people in Ireland is unknown, although it is not impossible that they triggered the construction of monuments such as the Black Pig's Dyke.

Dates from dendrochronology II: the 207 BC event

We know from separate work that there is a *narrowest-ring* event in Irish oaks at 207 BC. A narrowest-ring event is defined as a point in time when numbers of bog oaks on different sites exhibit the narrowest growth rings in their lifetimes. These narrowest-ring events seem to be related to abrupt environmental downturns, several of which seem to have been global in extent (Baillie and Munro 1988; Baillie 1995). The 207 BC date is interesting because of its close proximity to the suggested widespread change to wetter conditions around 200 BC already discussed. This precisely dated abrupt environmental downturn affecting Irish oaks encouraged a search for anything in dated world history that might shed light on the cause of the event. It turned out that in literate China some horrendous famines were recorded, along with descriptions of crop failures and a dim sun, starting in 208 BC and coinciding with a major dynastic change, namely the start of the Han Dynasty in 206 BC. Pang (1991) notes that Pan Ku, author of a history of the Han dynasty, refers to 'the stars not being seen for three months starting in August 208 BC'. In the same year there were 'hard rains' lasting for three months. Various other Chinese records investigated by Pang state that the harvest

had failed in November 207 BC and that by 205 BC there are references to famine, cannibalism, population movements and a massive death toll. Finding such information from the other side of the Old World on the basis of an environmental event in Irish trees suggests that this package may be part of a global-scale event.

This is further reinforced when we add in information for the Mediterranean region as compiled by Forsyth (1990). Discussing the period, Forsyth writes:

'Livy tells us that in the year 206 BC two suns were seen at Alba, and adds that light appeared in the night at Fregellae (28.11.3-4); for the year 204 BC he notes that a halo had encircled the sun . . . in addition Appian mentions that certain direful prodigies sent by Jupiter had appeared at Rome in 204 BC.'

So, there were a number of things seen in the sky in this immediate period. Forsyth goes on to mention Livy's comments on a major epidemic in and around Rome in 208 BC, and another in 205 BC. According to Livy, the reason given for the Romans to consult the Sibylline books and 'to bring the image of Cybele, the Magna Mater, to Rome from Asia Minor' was specifically 'frequent showers of stones seen in 205 BC'. Other statements suggest that things may have started even earlier. Stothers and Rampino (1983a) had noted Livy's 217 BC record that 'the sun's disc seemed to be diminished'. They also noted that Silius Italicus mentions glowing stones suddenly appearing from the south and falling near Rome, while Livy has another shower of stones in 212 BC. Overall, in the Mediterranean region, apart from the prodigies, there were crop failures, famines and epidemics as well as drought.

Taken together, the information provided by Pang, Forsyth and Stothers and Rampino suggests a possible loading of the atmosphere in the later third century BC, with severe environmental consequences, particularly after 208 BC. This is where ice-core records might provide some clues as to the cause of the events. In the original Camp Century core from Greenland there did indeed appear to be a volcanic acid signal at around the correct time (Hammer *et al.* 1980). Unfortunately, later and better-analysed cores (Dye3 and GRIP) failed to confirm any significant volcanic event in the later third century (Clausen *et al.* 1997). This absence of volcanic signal could, however, be used to direct attention to a possible extraterrestrial loading of the atmosphere, as hinted at strongly by the list of events.

How might this large-scale environmental event have affected populations in Ireland? If the symptoms witnessed in China and the Mediterranean were in any way reflected here, we can infer that people witnessed a dim sun, various phenomena in the sky, severe environmental conditions and a failure of the food supply. What we can also infer is that the victims would have had no idea of the cause of their misfortune other than some generalised 'anger of the gods'.

Dates from dendrochronology III: the Corlea I trackway

We now know that some 60 years after the 207 BC event the major Corlea I trackway was constructed, in 148 BC (Raftery 1986). Figure 2 shows ring patterns from the timbers of the trackway that run back across the 207 BC episode. The illustration presents the site master chronology, which shows the average growth of Corlea oaks from 250 to 148 BC. Plotted with the master chronology is a sub-master made from five trees from the site that show a clear reduction in ring width after 200 BC. Looking at the figure closely, it is possible to see that the subgroup parts company with the master chronology after 199 BC; thereafter the subgroup average ring widths are always narrower than those of the total population. The most logical explanation for this behaviour is that the subgroup represents trees that were most affected by rising water levels. Observations of this kind allow the beginnings of a picture to emerge that can act as a backdrop for archaeological information.

Although this may seem to be labouring the 229–13 BC bog-oak gap, the solution to the original chronology-building problem was as follows. Irish archaeological timbers (oaks cut down by people and put into wet contexts) from the Dorsey and Emain Macha extended the Garry Bog II chronology forward in time from 229 BC to 95 BC. In a separate exercise, an oak chronology was constructed using timbers from Roman Carlisle, linked to another chronology from Roman London. When combined, these successfully bridged the Irish bog-oak gap, defining the last ring of the Garry Bog II chronology as 229 BC. Similarly, the lucky finding of a group of English bog oaks at Swan Carr, near Durham in northern England, allowed the construction of a floating chronology section that spanned 1155 BC to 381 BC. This chronology bridged the tenth-century BC Irish gap, defining the last ring of the Long Chronology as 949 BC and the first year of Garry Bog II as 947 BC (Pilcher *et*

al. 1984). In summary, several dates that emerged from the construction of the Irish oak chronology fall at 948 BC, 229 BC, 207 BC, 95 BC and 13 BC.

Dates from ice cores

We now turn to an alternative source of information relating to the centuries following 200 BC, namely information from the Greenland ice cores. When long ice-core records from Greenland were first examined, it became clear that from time to time layers of weak sulphuric acid were encountered (Hammer *et al.* 1980). This acid was the result of sulphur being injected into the stratosphere by explosive volcanic eruptions. These layers could be dated by layer-counting; hence ice cores gave the first clear record of past volcanic activity for the Holocene. The acid could be detected either chemically or by measuring the conductivity of the ice (applying two probes to the ice with a voltage between them allows the conductivity of the ice to be measured; where there is acid present, the amount of current that can flow is increased and the electrical conductivity rises). The sulphate data formed just one of a suite of chemical and isotopic records developed from the ice cores. For the purposes of this article the main ice cores were the American GISP2 core (Zielinski *et al.* 1994) and the European Dye3 and GRIP cores (Clausen *et al.* 1997).

It was pointed out many years ago by Stothers and Rampino (1983b) that the ice acidity at 49/50 BC most likely related to a known dim-sun event (i.e. where a dust veil was obscuring the sun) in 44 BC, the year of Caesar's death. This idea has been backed up more recently, when it was shown that before AD 700 the GISP2 record is nineteen years *too young* when compared with the European GRIP record (Southon 2002; Baillie 2006). It has also been suggested, on quite good evidence from the sixth century AD, that before AD 700 the European GRIP and Dye3 records may be *too old* by around seven years (Baillie 2008). Thus, if we want to compare these ice records with history or tree-rings (i.e. in real time before AD 700), the American GISP2 dates have to move back twelve years (19 minus 7) and the European GRIP dates have to move forward by about seven years. This set of ice moves, in line with Stothers, Rampino and Southon, suggests what may have been an environmentally effective volcanic eruption in the 40s BC. The big surprise was that moving the GISP2 chronology by twelve years leaves 44–42 BC as a gap in the

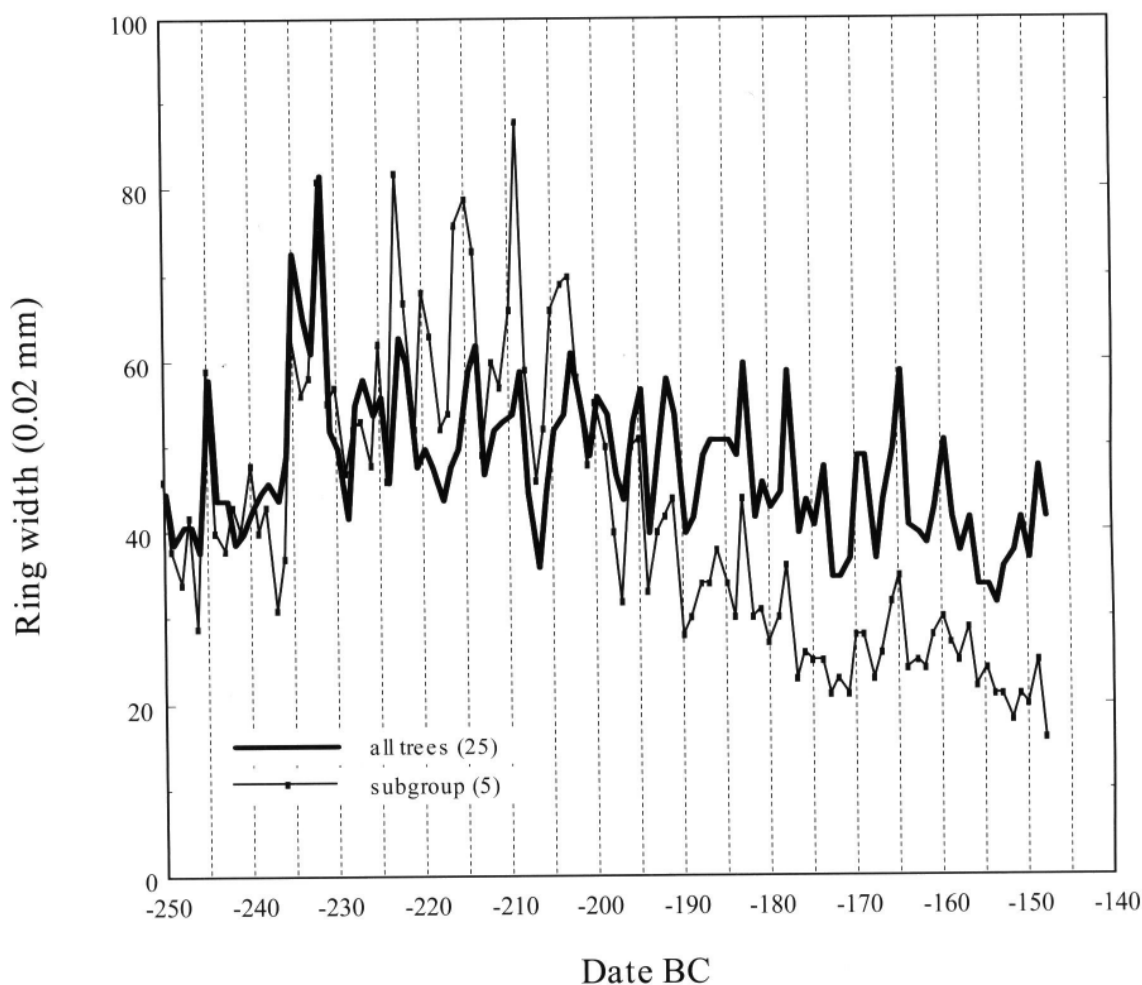


Fig. 2—Master chronology for the Corlea I trackway (heavy line), with a sub-master of trees with narrower ring widths after 200 BC.

American analysis. It turns out that over 3m of the GISP2 core were lost at this point, between 475.85m and 478.4m. On the revised time-scale this lost section equates to the interval 39–52 BC. This may be the reason why more has not been made of the 44 BC event. In the original GISP2 analysis, using the unrevised chronology, there was a large acid spike at 54 BC and a small spike at 44 BC. We can now see that the large spike is at 66 BC and the small at 56 BC, with a gap in the record across 44 BC.

Returning to tree-rings, it has been known for many years that bristlecone pines in the western United States sometimes suffer frost damage owing to the environmental upset caused by large explosive volcanoes (LaMarche and

Hirschboeck 1984). As shown in Table 1, the bristlecone pine frost ring at 43 BC sits comfortably with the revised dates for acid in the Dye3 and GRIP cores. Indeed, looking at the story for the date range 40–170 BC, it is evident that three frost rings coincide with three acidity signals at 43 BC, 140 BC and 161 BC.

Let us imagine that we are now comfortable with ice-core acidity and frost-ring evidence for a big volcano-induced environmental event at 44/43 BC, coinciding precisely with the historical records of a dim-sun or dry-fog year at the time of Caesar's death; what else can we add? It turns out that in a temperature-sensitive pine chronology from northern Sweden there is a dramatic downturn in

Table 1—Revised dates of acid in the GISP2, GRIP and Dye3 ice cores. The frost rings are observed in bristlecone pines from western North America and have elsewhere been linked to the effects of volcanoes (LaMarche and Hirschboeck 1984; Salzer and Hughes 2006).

GISP2	Dye3	GRIP	Comment
Gap 38–52	43	42	Frost ring 43
99	99	96	
110–113	116	112	
Gap 132–146	140, 136	140, 137	Frost ring 140
160–168	165, 169	163	Frost ring 161

growth at exactly this time (Hakan Grudd, pers. comm.). When the various data are plotted together, as in Fig. 3, a clear pattern emerges. Volcanic acid and historical sources tell us that a large volcano erupted, and the bristlecone frost damage lines up precisely with a dramatic downturn in the Swedish temperature-sensitive pines.

Here is a package of information relating to the aftermath of 44 BC (Baillie 1995).

43 BC: Bristlecone pine frost-ring event (LaMarche and Hirschboeck 1984).

44 BC: After Caesar's death 'the obscuration of the sun's rays; for during all that year its orb rose pale and without radiance' (Plutarch, *Caesar* 69. 3–4).

44 BC: Chinese histories record a red daylight comet in May and June. The comet's colour can be attributed to volcanic dust (Horgan 1987).

44–42 BC: China—six consecutive grain harvests (over three years) failed.

43 BC: China—in April it snowed and frost killed the mulberries. The sun was pale blue and cast no shadows.

43–42 BC: China—evidence for several distinct eruptions. By October 43 BC the sun seemed to have recovered, but in spring 42 BC the sun, moon and stars again appeared 'veiled and indistinct'. Ice-core workers, in attempting to match historical records with acidity peaks, note that 'the ice cores show no record of a summer [i.e. no summer-like change in chemical composition of the atmosphere] between acid spikes representing two of the eruptions which, according to histories, were about a year apart in May 43 BC and March 42 BC' (Horgan, after Herron 1982).

The downturn is also there in European oaks, though the effects are not quite so dramatic. Nevertheless, the widespread nature of effects makes it possible that Ireland may have been badly affected. Indeed, just recently a new tree-ring date for a trackway at Annaholty Bog, Co. Tipperary, has become available with an estimated felling range of 40 ± 9 BC (Taylor 2008). This is the first archaeological tree-ring date to fall in the long-standing 95 BC to AD 250 gap. It is now possible to say that following 40 BC there are no archaeological tree-ring dates for three centuries.

It is possible to play about with these ideas. Let us imagine that the effects of the 44/42 BC dust veil really were felt around the globe, with cold conditions, failed crops and widespread famine—effectively a repeat of the 207 BC event. Let us imagine that despite Ireland's normally temperate location it was also badly affected. Is it possible that such an event might be recorded in any way? Ireland, of course, has annals, and those annals ostensibly run back to 5200 BC. No one believes that the early records mean anything; it is assumed that at best they are variants of biblical or classical history, and at worst they are pure invention. Irrespective of that, let's see what they say across the first century BC. The only entries for the century are:

109 BC: First year of Conaire in the sovereignty of Ireland.

40 BC: Death of Conaire after 70 years in the sovereignty of Ireland. The text makes much of the 'golden age' that these 70 years represented.

39 BC: The first year of Ireland without a king.

34 BC: The first year of Lughaidh in the sovereignty of Ireland (making it clear that Ireland was without a king for five years).

9 BC: Death of Lughaidh (O'Donovan 1848).

So, although the compiler of the annals makes it clear that this is all later mythical nonsense, it nevertheless shows that by some sort of tradition, or invention, the idea existed that Ireland had switched from a 'golden age' to a kingless 'dark age' in the year 40 BC. This could be considered as not a bad 'stab in the dark' by someone to pick that particular date as the time of something profoundly 'bad' happening!

The question is whether archaeology will ever be able to tell us if this was the event that led to the several centuries of darkness indicated by the lack of dendrochronological findings and the general lack of good archaeological sites. It seems reasonable to ask whether it may have been the reason

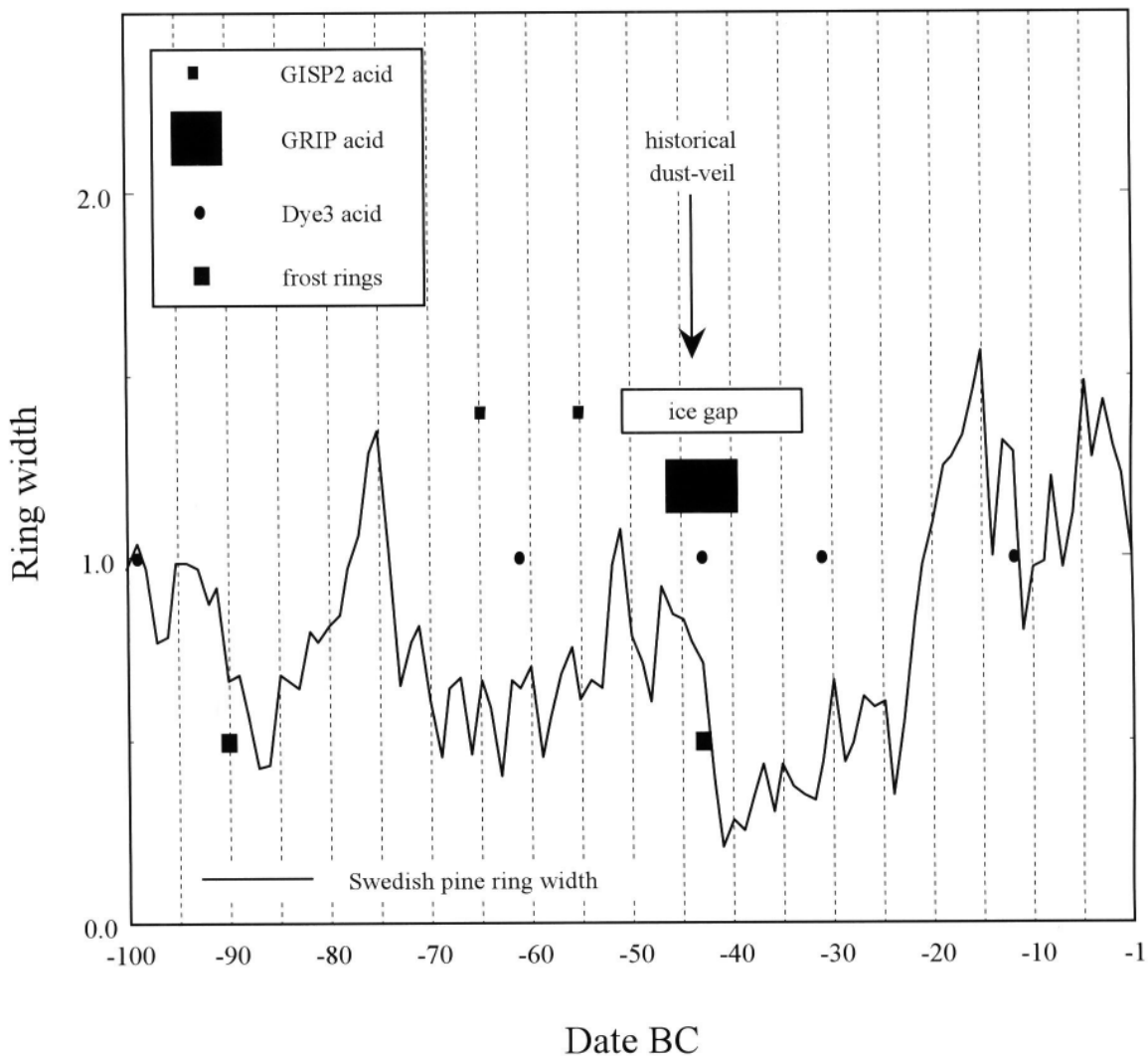


Fig. 3—Temperature-sensitive Swedish pine chronology (Grudd *et al.* 2002), showing the dramatic downturn after the historical dust veil of 44 BC, plotted with dates for bristlecone pine frost rings (LaMarche and Hirschboeck 1984) and revised dates (Baillie 2008) for ice-core acidity layers (Clausen *et al.* 1997; Zielinski *et al.* 1994).

why the Romans never invaded Ireland in force—there was no substantial community to invade! Obviously this is an outlandish suggestion, but the scenario is by no means impossible. In this respect, the Annaholty trackway dating shows the importance of accumulating tree-ring dates in order to get the most refined picture of well-dated human activity.

Conclusion

Although much of the information is still in need of

refinement and confirmation, we are beginning to see some environmental issues intruding into this early Iron Age period. We can envisage two major environmental events focused on 207 BC and 44 BC, either or both of which could have had significant effects on the population of Ireland. Although we haven't discussed some of the other dates in Table 1, there is the possibility that in the 160s BC, in the window 140–137 BC, in the later 110s BC and in the early 90s BC there were events, any of which could have affected populations in Ireland. We can now see a hint of context for the construction of the 'Temple' at Emain Macha, and the construction of at least sections of the

Dorsey around 95 BC, shortly after what may have been a 'dust-veil event'. Then, depending on the local effects of the volcanic event following 44 BC, we may have a partial explanation for the effective 'dark age' that seems to prevail for several centuries. It would behove both archaeologists and palaeoecologists to attempt to tease out just what did happen in the late 40s BC.

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References

- Baillie, M.G.L. 1985 Dendrochronology and radiocarbon calibration. *Ulster Journal of Archaeology* 48, 11–23.
- Baillie, M.G.L. 1995 *A slice through time: dendrochronology and precision dating*. London. Routledge.
- Baillie, M.G.L. 2006 *New light on the Black Death: the cosmic connection*. London. Tempus.
- Baillie, M.G.L. 2008 Proposed re-dating of the European ice core chronology by seven years prior to the 7th century AD. *Geophysical Research Letters* 35, L15813, doi:10.1029/2008GL034755.
- Baillie, M.G.L. and Munro, M.A.R. 1988 Irish tree-rings, Santorini and volcanic dust veils. *Nature* 332, 344–6.
- Clausen, H.B., Hammer, C.U., Hvidberg, C.S., Dahl-Jensen, D. and Steffensen, J.P. 1997 A comparison of the volcanic records over the past 4000 years from the Greenland Ice Core Project and Dye Greenland ice cores. *Journal of Geophysical Research* 102 (C12), 26,707–26,723.
- Forsyth, P.Y. 1990 Call for Cybele. *Ancient History Bulletin* 4 (4), 75–8.
- Grudd, H., Briffa, K.R., Karlén, W., Bartholin, T.S., Jones, P.D. and Kromer, B. 2002 A 7400-year tree-ring chronology in northern Swedish Lapland: natural climate variability expressed on annual to millennial time scales. *The Holocene* 12 (6), 657–65.
- Hammer, C.U., Clausen, H.B. and Dansgaard, W. 1980 Greenland ice sheet evidence of post-glacial volcanism and its climatic impact. *Nature* 288, 230–5.
- Herron, M.M. 1982 Impurity sources of F, Cl, NO and SO in Greenland and Antarctic precipitation. *Journal of Geophysical Research* 87, 3052–60.
- Horgan, J. 1987 Volcanic winter. *Scientific American* 2 (1987), 83–4.
- LaMarche, V.C. Jr and Hirschboeck, K.K. 1984 Frost rings in trees as records of major volcanic eruptions. *Nature* 307, 121–6.
- Leuschner, H.H. von and Delorme, A. 1988 Tree-ring work in Göttingen—absolute oak chronologies back to 6255 BC. *Pact II.5 Wood and Archaeology*, 123–32.
- O'Donovan, J. (ed.) 1848 *Annals of the Kingdom of Ireland by the Four Masters*. Dublin. Hodges and Smith.
- Pang, K.D. 1991 The legacies of eruption. *The Sciences* 31 (1), 30–3.
- Pilcher, J.R., Baillie, M.G.L., Schmidt, B. and Becker, B. 1984 A 7272-year tree-ring chronology for western Europe. *Nature* 312, 150–2.
- Raftery, B. 1986 A wooden trackway of Iron Age date in Ireland. *Antiquity* 60, 50–3.
- Salzer, M.W. and Hughes, M.K. 2006 Bristlecone pine tree rings and volcanic eruptions over the last 5000 yr. *Quaternary Research* 67, 57–68.
- Southon, J. 2002 A first step to reconciling the GRIP and GISP2 ice-core chronologies, 0–14,500 yr BP. *Quaternary Research* 57, 32–7.
- Stothers, R.B. and Rampino, M.R. 1983a Volcanic eruptions in the Mediterranean before AD 630 from written and archaeological sources. *Journal of Geophysical Research* 88, 6357–71.
- Stothers, R.B. and Rampino, M.R. 1983b Historic volcanism, European dry fogs, and Greenland acid precipitation, 1500 BC to AD 1500. *Science* 222, 411–13.
- Taylor, K. 2008 At home and on the road: two Iron Age sites in County Tipperary. *Seanda* 3, 54–5.
- Zielinski, G.A., Mayewski, P.A., Meeker, L.D. et al. 1994 Record of volcanism since 7000 BC from the GISP2 Greenland ice core and implications for the volcano-climate system. *Science* 264, 948–52.

Following the Sweet Track

Bryony Coles and Richard Brunning

Introduction

As Barry Raftery found with his first excavation at Corlea, to peel away the peat and reveal a piece of wood unseen for thousands of years is both exciting and intriguing. The immediacy of a gleam of fresh silvery-yellow bark and the sharp-edged curve of axe facets conjure a picture of the living tree and the person who felled it. It seems like no time ago it is so fresh, yet aeons old it lies so deep in the slow-growing peat. And then the immediacy of the visual and tactile link with the past is followed by an array of post-excavation analyses. These bring a flow of results, so much more knowledge, and more formal and distanced than came from that first sighting of wood. Over the years, in fits and starts, the information gained continues to extend the boundaries of our understanding of the past, yet it never quite overwhelms that first immediacy. So, at least, we have found with the Sweet Track (Fig. 1), first excavated in 1970, immediately exciting and still, in the early 21st century, a source of new ideas and information concerning the people who built and used it. In this paper we will briefly outline what was learned from the Sweet Track from the time of its discovery to the mid-1980s, when excavation gave way to *in situ* conservation. We will then consider what has been learned in the subsequent decades, and how this has affected interpretation of the trackway and its significance for the wider context.

In 1970 the first excavation of the Sweet Track took place in the context of a Cambridge University research project directed by John Coles, with Alan Hibbert leading the palaeoenvironmental studies. They had built up several years' experience of working in the Somerset Levels, in the peat-cutting areas and in the pasture fields. From 1973, extra support came from Exeter University and from the Department of the Environment, with funding from the latter enabling the establishment of the Somerset Levels Project, with a full-time field archaeologist and palaeoenvironmentalist. As peat-cutting expanded, more trackways were found, and excavation increased ahead of the cutting. By 1985, the last year of SLP excavations, in the order of 100 wooden trackways, and numerous other more amorphous wooden structures, had been examined. As for

the Sweet Track, its route had been traced across 1,800m of former marsh, a number of excavations had taken place totalling about 370m in length, and 550m of the structure lay unseen and protected within a National Nature Reserve (J. Coles and Orme 1984a; B. Coles and Coles 1986).

What did we know of the Sweet Track back in 1985, fifteen years after its discovery? It was built of wood, a 1.8km-long raised single-plank walkway linking Shapwick Burtle, an island just north of the Polden Hills, to the larger Westhay Island in the middle of the marsh (Fig. 2). The people who built it took wood mainly from the nearby dryland forests, using stone-bladed tools and wooden wedges to fell trees and prepare planks, posts and stakes. The axe blades, flint tools and occasional potsherd found beside the trackway indicated a Neolithic date, as did the position of the structure low in the peat; radiocarbon dating confirmed the Neolithic date and gave some precision, between 4000 BC and 3700 BC when calibrated. Pollen, macroflora and insect analyses by Steve Beckett (1979), Astrid Caseldine (1984; 1988) and Maureen Girling (1979; 1984) indicated an immediate environment of reed-swamp interspersed with areas of more open water, and dry land covered with mixed deciduous forest and barely a trace of arable cultivation.

Tree-ring analyses by Ruth Morgan (1988), together with macro-scale study of the wood, suggested that a previous generation of humans had already taken wood from the forests around the southern end of the track and their successors had found the regenerated young trees good for building, while the massive 400-year-old oak trees used for some of the planking may have grown on the northern island. The tree-rings showed that the bulk of the wood had been felled in one season, indicating that the track was built in one episode rather than gradually extended over the years, though when that episode was could not be determined. Some wood was felled earlier, perhaps reused from another structure, and there had been repairs to the track for no more than a decade. The degree of fungal growth on the wood suggested that the structure was not exposed to the air for more than a few years, which, together with the tree-ring repair evidence, suggested only a few years of use following the main building episode.

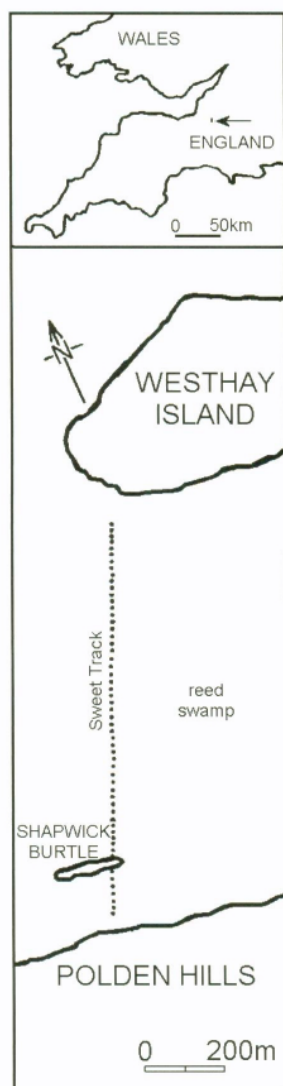


Fig. 1—Location of the Somerset Levels and of the Sweet Track.

The raw materials for some of the artefacts found alongside the track came from a distance; flint for one axe blade was tentatively identified as coming from the Sussex mines, while a greenstone blade was jadeite, probably from the Alpine foothills. Pottery was in the general style of the southern British earlier Neolithic (Fig. 3), and some of it similar in shape and colouring to pots from the far south-west, although not made of the distinctive gabbroic clay of that region. Wooden artefacts, rare for the British Neolithic, included several curved yew-wood pins; we enjoyed speculating what the pins had been used for, and while they seemed to be very personal objects, another close link with the trackway-builders, our uncertainty over their function



Fig. 2—Excavation of the Sweet Track, showing the jadeite axe blade *in situ* and numerous cross-stakes suggestive of repairs to the structure.

was a reminder of how far removed our own world was from that of the people who had owned and used them (see discussion in J. Coles and Coles 1996).

Dates and dairy products

In 1989, when the Somerset Levels Project officially ended, John Coles (1989) summarised the prehistoric evidence from the Brue Valley and placed the short-lived Sweet Track more or less centrally in the 4050–3800 cal. BC time-span indicated by its radiocarbon dates, at around 3900 cal. BC. Meanwhile, at the Sheffield dendrochronology laboratory,

Jennifer Hillam and colleagues were attempting to fill a gap, between 4165 and 3807 BC, in a tree-ring master chronology for English oak that extended from 4989 BC to 381 BC. As well as using newly discovered wood, they re-examined the oakwood samples from the Sweet Track, which had been kept in cold storage in Sheffield. Their results enabled the gap to be filled, and dated the main felling episode of the Sweet Track oak to the winter or early spring of 3807/6 BC (Hillam *et al.* 1990). As the wood had been worked green, the trackway was judged to have been built soon after, in 3806 BC. The Sweet Track was the first structure from the British Neolithic to be tree-ring-dated, and remained so for some time, while in Ireland dendrochronology was used successfully on several trackways, including Corlea 6, excavated by Barry Raftery, which was dated to 2259 $\pm$ 9 BC (Raftery 1990; 1996; Baillie and Brown 1996).

Following the 1990 pinpointing of the Sweet Track date, several aspects of its implications were pursued. Knowing to the year when the structure was built brought home the significance of its short life, with the only proven repairs to the structure being an oak plank added after 3804 BC and an ash plank in 3800 BC (Hillam *et al.* 1990). The contrast with the quarter-millennium time-span of the radiocarbon dates was stark, and led to a reappraisal of the levels of human activity in the Brue valley from the Neolithic to later prehistory (J. Coles and Coles 1999). We argued that the long radiocarbon time-spans for many of the structures gave a false impression of continuous activity in the wetlands, whereas the more likely scenario was one of long periods of reduced activity, or none that left surviving evidence, punctuated by occasional episodes of trackway-building (and survival). We had already used the evidence for the short life of the track to argue that all the artefacts associated with it were in contemporary use, in the sense of being in the possession of people who used the trackway, and dropped or deposited the artefacts in the probable 6–15 years of its life. Now we knew those years were from 3806 to shortly after 3800 BC, and we could begin to talk about precise chronological relationships with other tree-ring-dated sites, whether earlier or later or exactly contemporary (B. Coles 1999; B. Coles and Coles 2006). In most cases there was no thought of suggesting any cultural links, for the majority of the tree-ring-dated sites were to be found in mainland Europe, and predominantly from around the Alpine lakes. As we shall see below, however, the precise date for one of the Sweet artefacts was to have a bearing on one major Continental research project.

Recent developments in the use of radiocarbon dates, notably the various projects of Alasdair Whittle, Alex Bayliss and Frances Healy, have begun to provide a more detailed picture of the chronology of the early Neolithic in southern Britain. It is becoming apparent that different elements of the familiar archaeological package that makes up 'the Neolithic' first appear in the record at different times, and that the first signs of things Neolithic appear sooner in some regions than in others. So, for example, in southern Britain pottery, flint-mines, pits, timber houses and domestic plants and animals are seen from about 4000 cal. BC, with the earliest barrows dating from 3800 cal. BC onwards (Whittle, Bayliss *et al.* 2007, 66). When comparing different regions, the earliest Neolithic evidence from around the Thames estuary dates from around 4120–3935 cal. BC, while that from Devon and Cornwall is several generations later, at around 3820–3730 cal. BC (Bayliss *et al.* 2008). In this light, the Sweet Track belongs shortly before the first monument-building in southern Britain and, albeit in Somerset rather than Devon or Cornwall, its short life occurred early in the regional Neolithic sequence. This might account for the difficulty of linking it with contemporary Neolithic monuments or arable farming in the surrounding region: there were as yet hardly any such things in the south-west.

Yet there are hints in the tree-ring evidence of earlier activity, including a trackway built 32 years before the Sweet Track. This is the Post Track, an intermittent line of vertical posts and solid planks laid on the marsh surface, taking a slightly wandering route along the same line that was later followed as straight as a Roman road by the Sweet Track. There is not space here to analyse the Post Track evidence in detail, but its dating rests in large part on the presence of two pieces of ashwood felled, according to the tree-ring evidence, in 3838 BC (Morgan 1988; Hillam *et al.* 1990). Whatever the Post Track may represent, and it may not have provided a continuous walkway, the ashwood felling indicates the presence of woodworkers in the Somerset Levels 32 years before the Sweet Track building year of 3806 BC.

The precision of the Sweet Track tree-ring date has been used by Richard Evershed and his research team in the Department of Chemistry at Bristol University to check the reliability of using organic residues in potsherd walls for radiocarbon dating. To do this, they extracted lipids from a number of sherds found beside the Sweet Track; as the research developed, the team found that in addition to providing reasonably accurate radiocarbon dates from the

residual lipids, they could identify some of the former contents of the pots, including plant contributions, ruminant adipose or carcass fats and ruminant dairy fat (Berstan *et al.* 2008). It would seem most unlikely that the ruminant dairy fats came from the milk of wild aurochs, and reasonably safe to conclude that they came from the milk of domestic cattle, sheep or goats, and most likely from cattle. Evershed's team have worked on pottery from other sites in southern Britain, and now have a substantial body of evidence for dairy fats from early Neolithic pots, but none as closely dated as those from the Sweet Track.

On the basis of the Sweet Track tree-ring dating and lipid evidence, we can say that by 3800 BC domestic animals, probably cows, were being kept for their milk, and the levels of concentration of lipids in the pot walls suggest that the dairy fat was in the form of butter. The milking, and the making of butter, possibly took place quite close to the Sweet Track; butter, however, will keep for a long time in a pot, and it could have been traded in from elsewhere. In addition, the identification of adipose or carcass fat shows that at least one of the Sweet Track pots was used to hold the products of slaughtered ruminants, while two others held plant products. The animal fats come from pots distributed along the southern 300m of the track, while the plant products come from pots found further north along its length. Thus in one short period of time, and in association with one structure, pot contents were varied, a not altogether surprising discovery. What is perhaps surprising is how well the earliest Neolithic package in southern Britain, as currently determined by archaeologists, is represented along the trackway: pots, mined flint, leaf-shaped arrowheads, dairy products, and ample worked wood to show how a timber house could have been built. All that is lacking is direct evidence for cereal cultivation.

The wider world

The ramifications of the Sweet Track dendro-date spread wider with JADE, an international research project investigating the source, dating and distribution of jadeite axe blades; it is directed by Pierre Pétrequin, with Alison Sheridan coordinating work on the British specimens (Pétrequin *et al.* 2008; Sheridan 2007). At the time of its discovery in 1973, the jadeite axe blade found beside the Sweet Track was known to have come there sometime in the early centuries of the Neolithic, a vague dating but better

than for any other example from Britain (J. Coles *et al.* 1974). Today, 35 years later, it is still the only securely dated example, and the date of its deposition is much more precise: between 3806 and 3790 BC. The only other dated specimen is a broken piece of blade from a Neolithic tomb at Cairnholy in Scotland, deposited probably but not certainly in the early Neolithic.

The bulk of jadeite blades from Britain are 'stray' finds, without context, which is one reason why there are so few dated examples and some uncertainty as to their function. If it weren't for the waterlogged peat, which preserved the wood of the trackway, the Sweet example too would be an undated stray find, distant from any settlement or monument of similar date. As it is, the details of its context are well known, found beneath a short oak plank beside the track in the middle of a reed-swamp. It is also the only jadeite axe where we know the absence of a haft cannot be a product of post-depositional decay. Based on this information, a number of archaeologists (ourselves included) have interpreted the blade as an offering—because it had no haft, because it appeared unused, because it had been deposited in a watery context, and because other artefacts, including a flint axe blade, were also found at intervals alongside the track. How does this fit with the results of the JADE project?

Pétrequin and his team have discovered two jadeite quarries in northern Italy, one at Mont Beigua north-west of Genoa, and one at Mont Viso high in the mountains south-west of Turin; the quarries were probably opened towards 5000 BC, and exploited for over 2000 years. During this time the style of blades evolved, enabling a European typology to be drawn up and dated by reference to the context of some of the mainland finds. Near the quarries, within the zone where people knew of the source, they were hafted and used as axes, yet even at source the stone appears to have had symbolic value. With increasing distance, the blades appear to have been used primarily as symbols rather than for cutting wood, and can be seen as objects with a social rather than a utilitarian purpose. A social use might entail careful curation of the exotic blades, keeping them safe and in good condition between times of use, and thus many of them may have been hidden between times of public display. The jadeite blades may therefore require more nuanced interpretation, as highly valued and powerful symbolic tools whose deposition was sometimes, but not always, intended as a final act (Pétrequin *et al.* 2008, 261). Seen in this light, the Sweet Track blade was perhaps not cast



Fig. 3—Neolithic pot and wooden stirrer found beside the trackway.

from the track as an offering but carefully placed near a recognisable feature of the wooden structure, immersed in the swamp to keep the green stone safe and shiny, awaiting the next time its power was to be called upon.

The distribution of the blades across western Europe suggests that those which came to rest far from source, in Brittany and in Britain and Ireland, up to 1,800km from source, were by then old, i.e. the stone was quarried and the axe blade made perhaps several centuries before deposition. According to the JADE typology, the Sweet Track blade (Fig. 4) was made between 4500 BC and 4200 BC, while the archaeological evidence for early Neolithic contacts between Britain and mainland Europe suggests a Channel crossing

between 4200 BC and 3900 BC for the blade (Sheridan 2007). These dates are broad and tentative, but allow us to ponder that between three and six centuries may have elapsed between the quarrying and manufacture of the blade and its arrival in Britain, with a further lapse of time before it went into the reed-swamp, one day in the years 3806–3790 BC.

Landscapes near and far

In common with other wetland archaeological sites, the structure of the trackway and its associated artefacts only tell



Fig. 4—The jadeite axe found beside the trackway.

half the story. The remainder is derived from the palaeoenvironmental evidence that paints the canvas upon which human activity is drawn. The Sweet Track is particularly well served in palaeoenvironmental studies. Detailed pollen analysis of the peat sequence above and below the trackway was carried out as part of the Somerset Levels Project excavations (J. Coles *et al.* 1973; Beckett 1979; Caseldine 1984). This, combined with plant macrofossil and beetle analysis (Girling 1979; 1984), provided evidence of the wetland through which the trackway was built, a landscape dominated by *Phragmites* reeds with patches of deeper open water pools.

In 1993, the Sweet Track was identified for the first time to the south of Shapwick Burtle, suggesting that it had originally linked Westhay Island to the Polden Hills (Wells *et al.* 1999). When this southernmost end of the trackway was examined, the opportunity was taken to conduct high-resolution pollen sampling (1cm intervals). The results were

chronologically fixed by seven radiocarbon dates in order to be as precise as possible about the changes that occurred in the environment immediately before and after the initial construction of the trackway in 3806 BC (*ibid.*). This showed that the valley floor was becoming increasingly wet around the time of the trackway, with standing water present along most of the route, necessitating the creation of a raised walkway. The slightly drier conditions that prevailed immediately before this may well account for the simpler construction of the Post Track structure.

One potential reason for these significant changes in the valley floor has been suggested by research undertaken on the coastal barrier system and Holocene sedimentary sequence at Porlock Bay (Cooper *et al.* 1995; Canti *et al.* 1995; Jennings *et al.* 1998), about 40km west of the trackway. This estimated that there was a dramatic change in the rate of relative sea-level rise between 5550 and 5050 cal. BC, falling from c. 6mm/year to c. 2.7mm/year, and then by

4550 cal. BC to *c.* 2.1mm/year. This slow-down could have provided the trigger for the development of extensive coastal barrier systems (Canti *et al.* 1995). Shortly after this date the rate of relative sea-level rise continued falling to its present rate of between 1.3mm and 1.0mm/year, a rate that would not have released sufficient material to maintain the closure of barrier inlets (*ibid.*). The formation of such a barrier along the coast could have provided a natural dam for freshwater on its route to the sea. This would certainly have resulted in local flooding of the Levels on a seasonal basis and might explain why the episode was relatively short-lived, with the freshwater reed-swamp soon changing into a mesotrophic fen (Wells *et al.* 1999). This also provides one possible reason why the Sweet Track was only maintained for a comparatively short period of time, because such a structure was not required to permit passage across the new, drier environment (*ibid.*).

The high-resolution palynological study south of Shapwick Burtle also permitted a more critical examination of the relationship between the trackway and pollen evidence for changes in the oak–lime–elm woodland that dominated the dryland. The first unambiguous palynological evidence for anthropogenic alteration of the woodland, which occurs shortly after the creation of the Sweet Track, is shown by a temporary decline in elm and lime coupled with an increase in grasses (possibly cereals) and plants of disturbed ground. This study can be set alongside the evidence from the pottery and the wooden remains of the trackway itself to provide a unique picture of the development of the first farming communities.

The oak trees used along most of the Sweet Track included ones that were over 400 years old and may have been over 1m in diameter (Morgan 1988, 46). These undoubtedly represent trees of the untouched dense high-canopy primary woodland, which has long disappeared from virtually the whole of Europe, except for remnants such as the Bialowieza forest in Poland (Piggott 1975). At the southern end of the track, much younger oaks were used to make the walkway timbers. The trees were less than 150 years old with diameters up to about 50cm (Morgan 1988, 46), representing a germination episode owing perhaps to secondary regeneration of woodland, after a period of clearance at around 3950 BC (144 years before the Sweet Track and 112 years before the Post Track). The combined wood and pollen studies indicate shifting small-scale clearance of the primary woodland, as has been proposed for both the UK and continental Europe at this time (e.g. Rösch

1991) and proved at sites such as Hornstaad Hörnle IA (Maier 1999; Maier and Vogt 2000). In Somerset the varied sources of evidence (pollen, wood, tree-ring dating and lipid analysis) tentatively suggest that pastoral farming may have preceded arable agriculture by several centuries.

A comparison between the materials used in wooden structures over time also demonstrates how the character of the surviving woodland changed (Brunning 2007). The planks from the Sweet Track provide rare direct evidence of the massive oak trees that dominated the primary woodland. By the Bronze Age the UK evidence suggests that most oak trees being exploited for timber were much smaller in size, and were felled at between 100 and 150 years of age, reflecting modern practice that 'the grower of an oak for timber will think about felling it as mature at 100 years; after 150 years it becomes a store of capital increasingly at risk of decay' (Rackham 1983, 11). The oak timbers from the southern end of the Sweet Track suggest that this change in woodland management began at the very beginning of the Neolithic in Britain. Some trees were allowed to grow for longer for the creation of logboats, and for sewn plank boats in the Bronze Age, but the evidence of both timber and understorey products shows that the replacement of the natural forest by carefully managed woodland began in the early Neolithic (Brunning 2007). This could be seen as another part of the 'Neolithic package', defining a significant change from the Mesolithic lifestyle.

Learning by experiment

To help the general public appreciate the experience of the original Sweet Track pedestrians, several reconstructions of the structure have been made. For over twelve years a short replica of the trackway was maintained beside a reed-bed in Shapwick Heath National Nature Reserve in an area of peat that contained the *in situ* remains of the original. Other reconstructions were created and replaced for many years at the nearby Peat Moors Centre and were a favourite for school parties, especially as the balancing abilities of teachers often proved worse than the children's! These reconstructions were always compromised by the needs of public safety, for example with wide half-split logs used for the walkway surface instead of narrow thin planks. Sadly, increased health and safety restrictions mean that the public can no longer walk on the reconstructions, and at the time of writing the Peat Moors Centre is closed and its future uncertain.



Fig. 5—Experimental reconstruction (1997) of the Sweet Track in a reed-bed, showing the tunnel-like effect of the reeds.

Two reconstructions have been made in environments similar to Neolithic reed-swamp, both prompted by the requirements of film-makers. In 1983 a short (10m) stretch was erected by the Somerset Levels Project in an old peat cutting (J. Coles and Orme 1984b), and in 1997 the Somerset Heritage Service created a 30m reconstruction in a freshwater reed-bed on Shapwick Heath National Nature Reserve (Fig. 5). The latter reconstruction used materials of the exact species, size and method of manufacture as the original trackway. The use of narrow and thin, radially split planks for the walkway allowed a true appreciation of the inherent instability of the structure, and the efficacy of different methods of stabilising it could be tested. By using a combination of the stratagems recorded from the original build, a reliable walking surface could be achieved, and it was discovered that two people could pass each other, even on the narrowest planks, if a degree of close intimacy was permitted. Perhaps this may have added to the attraction of the original structure?

Although the 1997 trackway was not in constant use, the experiment permitted a reasonably reliable estimate of the lifespan of the structural components to be determined. The original raised walkway was supported by pairs of hazel roundwood stakes, forming 'V'-shaped cradles for the split planks. After three years significant decay was visible on the hazel stakes of the reconstruction at the interface between the air and water, and after four years they began to break. If the trackway were in daily use, all of the hazel stakes would undoubtedly have required replacing after this period of time. Dendrochronology shows that new planks were added to the structure in 3800 BC, six years after the original construction (Morgan 1988; Hillam *et al.* 1990). This means that at least one replacement of the hazel stakes must have been required. Suction would probably have prevented the removal of the rotted stumps, so all the stakes used in the life of the structure should have been visible during the excavations. Examination of the published plans (J. Coles *et al.* 1973; J. Coles and Orme 1976; 1979; 1984a) shows enough stakes to support the idea of one wholesale replacement. There are not enough, however, to suggest that the stakes were replaced for a second time. This suggests that the trackway had an active life of more than six years but less than eight years, when the second replacement of stakes would have been required. The trackway built in 3806 BC is therefore extremely likely to have gone out of use by 3797 BC. When left unused, the replica in the nature reserve disappeared from view in less than three months, to the extent that it was almost impossible to find among the reeds, even though its exact location was known. The end of the original structure may have been equally quick.

A period of less than ten years may sound remarkably short for a structure that required such effort in its construction, but it may well reflect a typical pattern for earthfast wooden structures that we can only detect when dendrochronology allows us the precision to prove it. The Neolithic alpine lake settlements provide many examples, such as Hauterive-Champréveyres (Lake Neuchâtel, Switzerland), where building began in 3810 BC, was completed in 3800 BC, with later repairs until 3793 BC (Billamboz 2006). At Hornstaad-Hörnle 1B (Bodensee, Germany) tree-ring dating showed occupation between 3586 and 3507 BC, during which time there were five main phases of rebuilding spaced sixteen, twenty, nine and ten years apart (Billamboz 1990; J. Coles and Coles 1989, 104), while the earlier Hornstaad-Hörnle 1A occupation began in

3917 BC, was repaired after a fire in 3910 BC and was abandoned around 3904 BC (Billamboz 2006). Another early Neolithic settlement at Egolzwil (Wauwilensee, Switzerland) lasted only twelve years, and three of the seven houses were rebuilt after just six years (J. Coles and Coles 1989, 105). The imprecision of typological and radiocarbon dating has prevented a wider appreciation of the brief, transitory nature of most prehistoric structures, but the application of Bayesian statistics to radiocarbon dates is now beginning to allow it to be revealed even for non-wooden structures such as long barrows (Bayliss *et al.* 2007; Whittle, Bayliss *et al.* 2007).

The famous reconstruction painting of the Sweet Track by Edward Mortlemans shows a group of Neolithic pedestrians separated by a wide space from the reed-beds on either side, the reeds having been cut back from the track. Building the 1997 replica in a similar environment led to the appreciation that, unless frequently cut, the reeds would inevitably have grown right up to the track, creating a narrow tunnel of reeds that would have risen above head height in summer. This suggests that without regular reed-cutting the use of the trackway for hunting can probably be discounted, as the only targets would have been fleeting glimpses of birds flying overhead. Instead, the 2km route would have felt extremely enclosed, with the only long views being the trackway ahead and behind, occasionally obscured by small kinks in the route, and the sky above. Even walking the short (30m) replica felt very strange, especially when the wind was blowing noisily through the reeds.

The contrast between the mature forest on the dry land (open at ground level but enclosed above) and the trackway in the reed-swamp (enclosed at ground level but open above) may have added to the special feeling of that landscape. The reconstruction has provided some support to the recent authors who have stressed the spiritual, special and ritual aspects of the structure (Bond 2004; Van de Noort and O'Sullivan 2006). The large numbers of artefacts found beside the Sweet Track are only paralleled in one other UK trackway, a Bronze Age example associated with an occupied platform at Shinewater Park in Sussex (Greatorix 1998), the overwhelming majority of wooden paths being completely devoid of any artefactual associations (Brunnering 2007, 197–200). This, combined with the high status of some objects such as the jadeite axe and possibly the finer pottery, strongly suggests that ritual deposition was carried out beside the structure. This is consistent with the findings of the JADE project mentioned above, which have suggested

wetland deposition for the curation of the axe blades between episodes of ritual use, as well as the more final act of deposition as an offering.

Rescue and preservation

The work of the Somerset Levels Project, like that of the Irish Archaeological Wetland Unit set up by Barry Raftery, was driven by the need to record irreplaceable information about past societies before destruction by peat extraction. The large-scale excavations of the Sweet Track were rescue work, resulting in a very detailed paper record of the fieldwork and the varied post-excavation analyses. They were unusual in the large quantity of wooden items that were conserved so that they could be retained for examination by future researchers. As a result, the Somerset County Museum has one of the largest collections in Europe of Neolithic structural and artefactual wood.

The preservation of the trackway *in situ* has also been an aim since its first discovery. In the early 1980s an assessment of the survival of the trackway was made along virtually its whole length (J. Coles and Orme 1981), demonstrating that a 500m-long stretch of the monument survived in a nature reserve leased from a local peat company. It was threatened, however, by the deep drainage used in the adjoining peat cuttings. This prompted the purchase of the area in 1983 and its establishment as a National Nature Reserve, with a system of pumps, pipes and ditches to bring water into the area to try and maintain a high water-table to protect both trackway and reserve (B. Coles 1995). Problems with water outflow from the area have largely been solved, since the adjoining worked-out peat cuttings have become an extensive reed-swamp and part of the reserve. A detailed assessment of the trackway's condition and its burial environment was conducted in 1996 (Brunnering *et al.* 2000), demonstrating that the hydrological management system (operated by Natural England) was successfully preserving the structure, providing an extremely rare example of a wetland monument actively protected over many decades by a system which detailed monitoring has proven to be successful (B. Coles and Olivier 2001). Another very rare example is of course the stretch of Corlea 1 in County Longford, which owes its survival to Barry's efforts.

Conclusion

In the years since 1985, our knowledge of the Sweet Track has expanded considerably. In terms of its physical context, the discovery that the route continued south of Shapwick Burtle links the structure via the Poldens to a vast dry hinterland of central southern England; such a link was always suspected, but the tangible evidence makes it easier to understand the trackway as part of a wider Neolithic world, rather than a phenomenon peculiar to its wetland context. We also have a better understanding of how the trackway was built at a time of increasing wetness, owing not to climate change but to impeded freshwater drainage caused by changes along the coast to the west.

In terms of chronological context, knowing the calendar year when most of the wood was felled to build the track represents a significant advance in knowledge, not so much for the exactitude of the age as for the doors it opens to comparison with other evidence both within Britain and further away. And thanks to the wider tree-ring studies, and the confirmation from experimental archaeology that the trackway must have had a very short period of use, we can say, with more certainty than is generally possible for prehistory, that all of the objects found along the track were in circulation (literally) in that same short period. The suggestion that the jadeite axe blade had been made several generations beforehand, while objects such as the flint flakes were perhaps made only on the day of deposition, is another aspect to consider: the material culture is contemporary in terms of use, but not in terms of manufacture. Meanwhile, research on dating the Neolithic in Britain has shown that the Sweet Track was built during the initial stages of things Neolithic in the south-west of the country.

Culturally, knowledge of the track-builders and users has expanded too. They carried pots along the track that had once contained dairy fats, other animal fats and plant lipids. Pots, not surprisingly, were used to hold a range of foodstuffs. It would seem, too, that these people kept dairy animals, or were in contact with people who did, while the first tentative hints of local cultivation only come later. The combination of evidence tentatively suggests that the first archaeological traces of the change to a Neolithic economy in Somerset consist of small-scale temporary clearance of the primary woodland, deliberate management of the secondary woodland, pottery production, pastoral farming, ritual deposition in wetlands and semi-permanent settlement suggested partly by the presence of the Sweet Track itself.

This seems to have preceded other expressions of monumentality, and possibly arable agriculture, by several centuries. It is also apparent from the dairy fats that woodland clearance may not have been undertaken solely for arable agricultural reasons but also to create areas of pasture—and we have long known that the Sweet Track itself is proof of felling for a major construction that was nevertheless very short-lived. In terms of understanding the first Neolithic of southern Britain, such things suggest a more diverse development than we had previously thought, a view that is in keeping with the regional differences now being suggested by the radiocarbon dating programmes undertaken by Whittle, Bayliss and Healy, and others.

Experimental results support the early suggestion, from tree-ring and fungus studies, that the track was short-lived, which is interesting in terms of the stress that others have laid on the probable ritual character of the structure: whatever ritual aspect there was, it had no permanence in terms of structure, nor in terms of the character of the surrounding wetland. Yet this need not mean that the route itself lost any ritual association, for we know from work in other wetlands and other periods that a location can hold its significance despite considerable change. Perhaps the envelopment of the trackway by the reed-swamp could also have been seen as part of the ritual landscape, a final structural offering to the wetland gods following the numerous artefacts that had been deposited beside it? Some of the artefacts may have been placed next to the track at the time of final abandonment of the routeway as part of an act of closure—a grateful farewell before the community moved to a new area. Knowing, as we do now, that the track precedes the building of long barrows and other monumental structures in southern Britain sheds something of a new light on the emergence of these monuments as permanent features in the landscape; their permanence was itself something new, but it followed rather than came with the earliest Neolithic in this country.

There was permanence, however, of a different kind in the jadeite axe blade that had been made many decades before deposition, though we cannot know how the humans who took it along the track perceived its age, nor whether they saw it as coeval with the ancient oak trees that were the source of the track's walkway. The Europe-wide study of jadeite axe blades has advanced our understanding of the Sweet Track in other ways too, in part by proposing a more subtle approach to the interpretation of ritual deposition. If the jadeite blade had been placed beside the trackway for safe

keeping between uses, rather than as an offering, then perhaps some of the other objects were likewise curated rather than offered, including the flint axe blade and perhaps the yew-wood pins.

As for the Sweet Track, it is worth remembering that in the eyes of its builders its purposes were quite likely manifold, and our attempts to disentangle ritual from utilitarian passage over the marsh from access into it, ritual deposition from ritual curation from utilitarian curation, and the like, are quite possibly entirely anachronistic. Nevertheless, if we want to advance our understanding of the past, asking such questions is part of the process and, as we hope this paper has shown, the development of new research into the evidence yielded by the trackway has been very fruitful in providing a range of insights, if not definitive answers.

Bibliography

- Baillie, M.G.L. and Brown, D.M. 1996 Dendrochronology of Irish bog trackways. In B. Raftery, *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*, 395–402. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Bayliss, A., Bronk Ramsey, C., Van der Plight, J. and Whittle, A. 2007 Bradshaw and Bayes: towards a timetable for the Neolithic. *Cambridge Archaeological Journal* 17 (1) (supplement), 1–28.
- Bayliss, A., Whittle, A. and Healy, F. 2008 Timing, tempo and temporalities in the early Neolithic of southern Britain. *Analecta Praehistorica Leidensis* 40, 25–42.
- Beckett, S. 1979 The environmental setting of the Sweet Track, Drove Site. *Somerset Levels Papers* 5, 75–83.
- Berstan, R., Stott, A., Minnitt, S., Bronk Ramsey, C., Hedges, R. and Evershed, R. 2008 Direct dating of pottery from its organic residues: new precision using compound-specific carbon isotopes. *Antiquity* 82, 702–13.
- Billamboz, A. 1990 Tree-ring analysis from an archaeological perspective. The structural timber from the South West German lake dwellings. In O. Eggertsson (ed.), *Tree-rings and environment*, 34–44. Lundqua Report 34. Lund.
- Billamboz, A. 2006 Dendroarchäologische Untersuchungen in den neolithischen Ufersiedlungen von Hornstaad-Hörnle. *Siedlungensarchäologie im Alpenvorland* 9, 297–414 (English summary at pp 352–5).
- Bond, C.J. 2004 The Sweet Track, Somerset: a place mediating culture and spirituality? In T. Insoll (ed.), *Belief in the past. The proceedings of the Manchester Conference on Archaeology and Religion*, 37–50. British Archaeological Reports, British Series 212. Oxford.
- Brunning, R. 2007 Structural wood in prehistoric England and Wales. Unpublished Ph.D thesis, University of Exeter.
- Brunning, R., Hogan, D., Jones, J., Jones, M., Maltby, E., Robinson, M. and Straker, V. 2000 Saving the Sweet Track. The *in situ* preservation of a Neolithic wooden trackway, Somerset, UK. *Conservation and Management of Archaeological Sites* 4, 3–20.
- Canti, M., Heal, V., Jennings, S., McDonnell, R. and Straker, V. 1995 Archaeological and palaeoenvironmental evaluation of Porlock Bay and Marsh. In M. Bell (ed.), *Archaeology in the Severn Estuary 1995*, vol. 6, 49–70. Lampeter. Severn Estuary Levels Research Committee.
- Caseldine, A.E. 1984 Palaeobotanical investigations at the Sweet Track. *Somerset Levels Papers* 10, 65–78.
- Caseldine, A. 1988 A wetland resource: the evidence for environmental exploitation in the Somerset Levels during the prehistoric period. In P. Murphy and C. French (eds), *The exploitation of wetlands*, 239–65. British Archaeological Reports, British Series 186. Oxford.
- Coles, B. 1995 *Wetland management: a survey for English Heritage*. WARP Occasional Paper 9. Exeter.
- Coles, B. 1999 Somerset and the Sweet conundrum. In A. F. Harding (ed.), *Experiment and design*, 163–9. Oxford. Oxbow Books.
- Coles, B. and Coles, J. 1986 *Sweet Track to Glastonbury. The Somerset Levels in prehistory*. London. Thames and Hudson.
- Coles, B. and Coles, J. 2006 Switzerland and the Sweet Track—then and now. In B. Arnold, N. Bauermeister and D. Ramseyer (eds), *Archéologie plurielle*, 125–35. Neuchâtel. Musée cantonal d'archéologie.
- Coles, B. and Olivier, A. 2001 *The heritage management of wetlands in Europe*. EAC Occasional Paper 1; WARP Occasional Paper 16. Exeter.
- Coles, J. 1989 Prehistoric settlement in the Somerset Levels. *Somerset Levels Papers* 15, 14–33.
- Coles, J. and Coles, B. 1989 *People of the wetlands: bogs,*

- bodies and lake-dwellers*. London. Thames and Hudson.
- Coles, J. and Coles, B. 1996 *Enlarging the past*. Society of Antiquaries of Scotland Monograph Series 11; WARP Occasional Paper 10. Edinburgh.
- Coles, J. and Coles, B. 1999 Passages of time. In S. Rippon (ed.), *Archaeology in the Severn Estuary*, vol. 9, 3–16. Exeter. The Severn Estuary Levels Research Committee.
- Coles, J. and Orme, B. 1976 The Sweet Track, Railway Site. *Somerset Levels Papers* 2, 34–65.
- Coles, J. and Orme, B.J. 1979 The Sweet Track: Drove Site. *Somerset Levels Papers* 5, 43–75.
- Coles, J. and Orme, B. 1981 The Sweet Track 1980. *Somerset Levels Papers* 7, 6–12.
- Coles, J. and Orme, B. 1984a Ten excavations along the Sweet Track. *Somerset Levels Papers* 10, 5–45.
- Coles, J. and Orme, B. 1984b A reconstruction of the Sweet Track. *Somerset Levels Papers* 10, 107–9.
- Coles, J., Hibbert, A. and Orme, B. 1973 Prehistoric roads and tracks in Somerset: 3. The Sweet Track. *Proceedings of the Prehistoric Society* 39, 256–93.
- Coles, J.M., Orme, B.J., Bishop, A.C. and Woolley, A.R. 1974 A jade axe from the Somerset Levels. *Antiquity* 48, 216–20.
- Cooper, J.A.G., Orford, J.D., McKenna, J., Jennings, S., Scott, B.M. and Malvarez, G. 1995 *Meso-scale behaviour of Atlantic coastal systems under secular climatic change and sea-level rise*. Report published by the Commission of the European Communities as part of the Impacts of Climate Change and Relative Sea-Level Rise on the Environmental Resources of European Coasts project under the CEC Environment and Climate Programme (Third Framework), No. EV5V-CT93-0258.
- Girling, M.A. 1979 Fossil insects from the Sweet Track. *Somerset Levels Papers* 5, 84–93.
- Girling, M.A. 1984 Investigations of a second insect assemblage from the Sweet Track. *Somerset Levels Papers* 10, 78–91.
- Greator, C. 1998 The Shinewater Track: an excavation of a Late Bronze Age waterlogged structure on the Willingdon Levels, near Eastbourne, East Sussex. Archaeology South-East Report No. 1171. Unpublished report by Archaeology South-East, Brighton.
- Hillam, J., Groves, C., Brown, D., Baillie, M., Coles, J. and Coles, B. 1990 Dendrochronology of the English Neolithic. *Antiquity* 64, 210–20.
- Jennings, S., Orford, J.D., Canti, M., Devoy, R.J.N. and Straker, V. 1998 The role of relative sea-level rise and changing sediment supply on Holocene gravel barrier development: the example of Porlock, Somerset, UK. *The Holocene* 8 (2), 165–81.
- Maier, U. 1999 Agricultural activities and landuse in a Neolithic village around 3900 BC: Hornstaad Hörnle IA, Lake Constance, Germany. *Vegetation History and Archaeobotany* 8, 87–94.
- Maier, U. and Vogt, R. 2000 Reconstructing the Neolithic landscape at Western Lake Constance, Germany. In S. Rippon (ed.), *Estuarine archaeology. The Severn and beyond*, 121–30. Archaeology in the Severn Estuary 11. Exeter. The Severn Estuary Levels Research Committee.
- Morgan, R.A. 1988 *Tree-ring studies of wood used in Neolithic and Bronze Age trackways from the Somerset Levels* (2 vols). British Archaeological Reports, British Series 184. Oxford.
- Pétrequin, P., Sheridan, A., Cassen, S., Errera, M., Gauthier, E., Klassen, L., Le Maux, N. and Paillet, Y. 2008 Neolithic Alpine axeheads, from the Continent to Great Britain, the Isle of Man and Ireland. *Analecta Praehistorica Leidensis* 40, 261–79.
- Piggot, C. 1975 Natural regeneration of *Tilia cordata* in relation to forest-structure in the forest of Białowieża, Poland. *Philosophical Transactions of the Royal Society* B270, 151–79.
- Rackham, O. 1983 *Trees and woodland in the British landscape*. London. Dent and Sons.
- Raftery, B. 1990 *Trackways through time*. Rush. Headline Publishing.
- Raftery, B. 1996 *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Rösch, M. 1991 Veränderungen von Wirtschaft und Umwelt während Neolithikum und Bronzezeit am Bodensee. *Bericht der Römisch-Germanischen Kommission* 71 (1990), 161–86.
- Sheridan, A. 2007 Green treasures from the magic mountains. *British Archaeology* (2007), 23–7.
- Van de Noort, R. and O'Sullivan, A. 2006 *Rethinking wetland archaeology*. London. Duckworth.
- Wells, C.E., Weir, D. and Brunning, R. 1999 Excavation of a possible terminal of the Sweet Track and pollen analysis of associated mid-Holocene peat, Somerset. Unpublished report in Somerset HER.
- Whittle, A., Barclay, A., Bayliss, A., McFadyen, L.,

Schulking, R. and Wysocki, M. 2007 Building for the dead: events, processes and changing worldviews from the thirty-eighth to the thirty-fourth centuries cal. BC in southern Britain. *Cambridge Archaeological Journal* 17 (1) (supplement), 123–47.

Whittle, A., Bayliss, A. and Healy, F. 2007 The timing and tempo of change: examples from the fourth millennium cal. BC in southern England. *Cambridge Archaeological Journal* 18 (1), 65–70.

Taking the waters: Scottish crannogs and the Atlantic Iron Age

Jon C. Henderson

Introduction

In Scotland evidence for living in wet environments has come almost exclusively from freshwater lochs in the form of lake-dwellings or crannogs. These sites are most often interpreted as domestic settlements located over water on artificial islands built as either freestanding pile structures or as consolidated mounds of timber, peat and brushwood (Munro 1882; Piggott 1953; Morrison 1985; Crone 2000; Dixon 2004). Despite the well-known fact that waterlogged and submerged crannogs preserve organic cultural material that is usually absent from dryland sites, crannogs have not yet had the impact on Scottish archaeology that their richness and potential contribution deserves (Henderson 2007a). Like wetland archaeology itself in Scotland, crannogs have long been regarded as something special, not only physically but conceptually removed from the terrestrial record. While recent specialist discussions have focused on the detail and complexity of crannog mound taphonomy (Crone *et al.* 2001; Crone 2007; Cavers 2007; Dixon 2007; Henderson 2007a), the evidence from crannog sites remains largely absent from wider archaeological narratives and they are rarely considered alongside the evidence from terrestrial settlements.

Part of the problem is the widely held perception that crannogs are chronologically and culturally unspecific sites. They are often quoted as having a ubiquitous nationwide distribution (Morrison 1985, 10; Dixon 2004, 9), while the use of artificial islet locations in Scotland is seen to span the period from the Neolithic to the eighteenth century AD (Morrison 1985, 22–5; Armit 1997, 34; Dixon 2004, 18). This has led to the impression that crannogs could be found anywhere and date from any period, and helps to explain why academics, who are usually concerned with specific periods, have tended to ignore them. This paper attempts to move beyond functionalist readings of crannogs and, based on their distribution and dating, place them within their wider social and cultural context.

Sharpening the resolution

The practice of occupying and living on islands in lochs undoubtedly has a long pedigree in Scotland. The oldest site that can be termed a crannog is Eilean Domhnuill on North Uist, a largely if not wholly artificial islet that was dated to the Neolithic period, *c.* 3200–2800 BC, on the basis of a large domestic assemblage that included Unstan ware (Armit 1996, 57–66). At the other end of the spectrum, the use of crannogs occurs as late as the eighteenth century AD, with some sites reportedly serving as refuges after the 1745 uprising (Morrison 1985, 22).

Despite the apparent wide range of use, it is significant that the vast majority of radiocarbon samples recovered from structural timbers on crannog sites date almost exclusively from the 'later prehistoric' period, broadly taken to be the period between 1000 BC and AD 500 (Henderson 1998, 230). Of the 53 examples that have so far been subject to radiocarbon dating, 46 sites have produced dates that calibrate between 800 BC and AD 400 (Henderson 1998, 229–35; Cavers 2005, 57–67; Dixon 2007, 258–61). Crannogs were reused and built in later periods—this much is clear from the recovery of diagnostic early historic assemblages, medieval finds and the existence of historic references—but the radiocarbon evidence clearly indicates that the main periods of crannog *construction* occurred during the later Bronze Age and Iron Age.

With over 370 referenced sites in the National Monuments Record, crannogs are one of the most prolific archaeological site types in Scotland. The assumption that crannogs are found throughout the country is misleading, however. A density surface plot of all referenced sites, recently calculated using GIS by Graeme Cavers (2005), clearly demonstrates that the greatest densities of sites are found in western Scotland, typically in lochs close to the Atlantic coasts (Fig. 1). Further support for a western concentration comes from the fact that many of the references for sites in eastern regions are uncertain reports or refer to sites which can no longer be located, while the vast majority of sites that can be confirmed are demonstrably of medieval or later date (Cavers 2005, 51–7). On the basis of

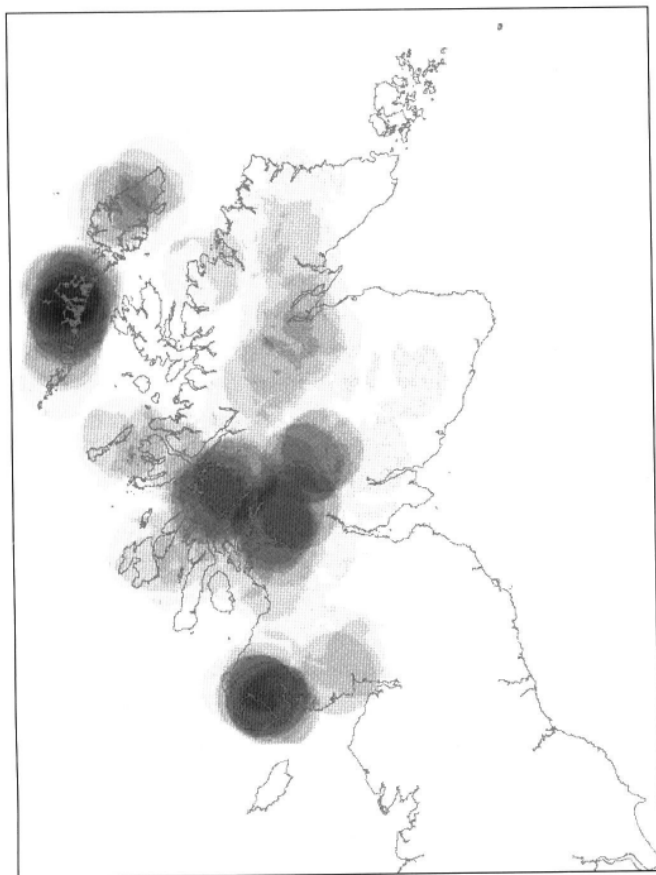


Fig. 1—Density distribution of artificial islet settlement in Scotland, illustrating their western concentration (source: Cavers 2005, fig. 4.2).

this pattern it is tempting to view crannogs as a prehistoric tradition with western origins that only became more common in other areas of Scotland after the political union of the country. The fact that freshwater lochs are found in their highest concentrations in the western half of Scotland has an obvious bearing on the distribution of sites but it does not make the significance of this distribution in reflecting related cultural behaviour any less valid. Further, given the lack of comprehensive survey of large lochs in the west and the significant number of new sites that were found when such survey took place in Loch Awe and Loch Tay (Morrison 1985; Dixon 1982), we can expect the actual amount of sites in the west to be much greater.

The available evidence strongly suggests that crannogs were a more significant component of the later prehistoric landscape than is usually recognised (Henderson 1998, 242; Harding 2004, 301). Further, the revised western-orientated densities of sites suggest not only that crannogs are

chronologically significant but also that they are culturally specific and should be regarded as a characteristically western trait. It follows, then, that to understand the reasons for the construction of these sites, and their potential meaning and significance in a wider social context, they should be considered in relation to the evidence from the western Scottish Iron Age.

Crannogs and the Atlantic Iron Age

The western or Atlantic Scottish Iron Age is best known through the study of a range of distinctive settlement forms, including drystone roundhouses, island duns, promontory forts and forts (Harding 2004, 108–51). These sites are alike enough in their architectural and cultural details to allow talk of shared cultural traditions throughout the Atlantic west, from the Shetland Islands to the Rhins of Galloway (Henderson 2007b, 150–72). The main domestic units throughout this zone are strongly built drystone forms, collectively referred to as Atlantic roundhouses (Armit 1990; 1992) (Fig. 2). These can be viewed as a distinctively Atlantic type that were circular, architecturally imposing structures, occupied by single households and deliberately constructed to stand alone in the landscape to enhance their visibility (Cunliffe 2001, 337). Simple forms of Atlantic roundhouses are built from *c.* 700 BC onwards, developing out of the stone-built hut-circle traditions of the late Bronze Age, while more complex forms featuring intramural cells and galleries are built from at least 400 BC, culminating in the last few centuries BC in the construction of fully developed broch towers (Armit 2003, 41–54).

Although they occur throughout the Atlantic zone, artificial islet sites are found in their greatest densities in Argyll and south-west Scotland. The addition of the island dun tradition extends the practice of later prehistoric islet occupation northwards (Harding 2000). Island duns have traditionally not been considered alongside crannogs owing to the fact that one of Morrison's defining characteristics of a crannog (1985, 17–20), that the foundations of the site should be at least in part artificial, is not always applicable to them. Given the weight of the drystone structures built at many island dun sites, the selection of more solid natural islets appears to have been the most common, though not exclusive, practice. For example, at Dun Bharabhat on the Isle of Lewis, a galleried drystone roundhouse and a smaller oval structure stood on an artificially reinforced natural

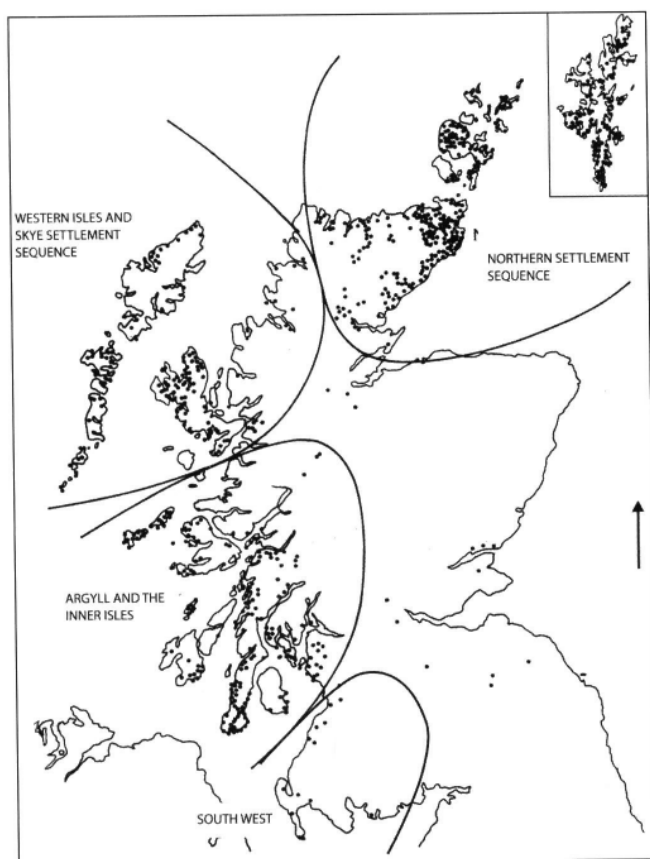


Fig. 2—Distribution of Atlantic roundhouses in Scotland.

island, connected to the shore by a stone-built causeway (Harding and Dixon 2000). Recent crannog surveys in the Inner Hebrides (Holley 2000, 134–218) and Argyll (Cavers 2005, 266–303) have recorded and dated artificial islet sites topped with stone-built structures closely related to, and contemporary with, Atlantic roundhouses.

The importance of separating crannogs and island duns on the grounds of the nature of their islet foundations can therefore be questioned (Harding 2004, 302–3). The watery location, appearance and use of these sites are likely to have been more important in terms of their symbolism and function in the later prehistoric landscape than the levels of artificiality of their foundations. On saying this, the artificial nature of the structure may have had more importance in terms of ease of construction, as well as visual impact and symbolic relevance, when dealing with wooden pile-driven crannog structures. Nevertheless, this does not change the fact that crannogs and island duns were undoubtedly closely related, contemporary and complementary elements of

western Atlantic settlement systems, representing the expression of similar concerns by the communities that constructed them.

It is surely more than a coincidence that the main period of major crannog construction, c. 800 BC to AD 400, is coterminous with the construction, development and use of monumental drystone roundhouse forms in Atlantic Scotland. In common with Atlantic roundhouses, crannogs are usually assumed to be farming homesteads for family or extended family groupings. The analysis of archaeobotanical remains from sampled crannogs supports this view and provides evidence of on-site cereal-processing and the keeping of livestock (Clapham and Scaife 1988; Miller 2002; Cavers and Henderson 2005). Structural parallels between terrestrial forms and crannogs are, however, not immediately straightforward. Unlike Atlantic roundhouses or island duns, the nature of the domestic dwellings originally built at crannog sites is far from certain. An examination of the available excavated evidence reveals that almost every site has so far struggled to produce a wholly convincing site plan indicative of permanent domestic occupation (Crone *et al.* 2001, 55–7). To date, only Buiston crannog has produced definitive evidence of *in situ* domestic structures. The remains of two timber roundhouse structures were recovered but, at around 5.6m and 8m in diameter respectively, they were considerably smaller than the substantial Atlantic roundhouse model and, in any case, were found to date from the sixth to seventh centuries AD (Crone 2000, 107–9). On saying this, the common circular and oval nature of crannog mounds, coupled with the radial arrangement of foundational timbers within them, suggests that, in keeping with contemporary settlement traditions, the domestic structures on crannogs are likely to have been circular.

Both Atlantic roundhouses and crannogs begin to be constructed towards the end of the late Bronze Age, a time of considerable change, when the deposition of bronze metalwork comes to an end and larger enclosure forms begin to be abandoned or downscaled (Barrett 1999). Fundamental and long-term changes in the concerns that drove later prehistoric communities can be discerned throughout this period. The widespread appearance of circular domestic settlements in the late Bronze Age occurs after the use of communal ritual monuments comes to an end (Henderson 2007b, 93–115). Evidence for ritual activity—the deposition of human and animal bones, and utilitarian and prestige objects—appears to switch focus from larger communal sites to settlement sites. By the Iron

Age, monumental Atlantic roundhouses were not only the foci for domestic life but were also the main settings for ritual activity (Hingley 1992, 23–4; 1995; Parker Pearson *et al.* 1999, 16). Unfortunately, given that no crannog has yet been subject to modern excavation on a large-enough scale to identify prehistoric domestic house remains, the identification of specialised and structured deposition on these sites awaits future detailed study. It remains a possibility that the deposition of agricultural implements in foundational layers at Oakbank and Milton Loch represents symbolic and ritually charged activity related to fertility and the agricultural cycle, as has been argued for similar finds on terrestrial Iron Age sites (Hingley 1992, 23–4). It is also interesting to note that the wealth of largely complete artefacts recovered at Loch Glashan crannog, including a penannular brooch, a silver-in-glass bead and an iron axehead alongside wooden and leather artefacts, were recovered from a discrete area on the margins of the site (Crone and Campbell 2005). Little attention is generally paid to the margins of sites during excavation, yet it is likely that deliberate as well as, of course, refuse depositions would have been made in such areas off the main structure of the site. Whatever the case, it seems certain that crannogs, like Atlantic roundhouses, were more than passive domestic sites and that their construction and use reflected something deeper than purely pragmatic concerns.

Constructing and living on islands

Clearly one of the key elements of crannogs is their association with water. It is widely accepted that prehistoric communities often imbued natural places and elemental forces with symbolic and ritual significance (Green 1986; Webster 1995). As a result, it is likely that lochs, as widespread and dramatic expanses of water in the western Scottish landscape, had a strong association with metaphysical phenomena in the eyes of the people who lived amongst them. That later prehistoric communities saw water as important is borne out by the ritually charged behaviour of depositing metalwork in lochs, rivers and bogs throughout the late Bronze Age (Coles 1960). The concurrence of crannog construction from at least 800 BC and the practice of watery deposition over this period is not circumstantial—certainly building substantial man-made sites in water in a late Bronze Age landscape context would have had considerable symbolic significance. The practice of deposition declines, in Atlantic areas at least, from the early

Iron Age onwards (Hunter 1997, 111), but it seems likely that the symbolic importance of and reverence for watery locations carried on, at some level, into the Iron Age through the continued construction and use of crannogs. In a recent paper, Cavers (2006) convincingly argued that it is the combination of the importance of water in the Iron Age with the Atlantic trend for highly visible yet isolated settlement locations that helps to explain the development of lake settlements in Scotland. He considers crannogs ‘as part of the wider process of the fusion of the ritual and domestic spheres of life’ (*ibid.*, 408) taking place during the Atlantic Iron Age.

It certainly took considerable effort and planning to construct an artificial island out on a loch; such a location was not the most obvious or expedient place to locate a site and would have been invested with deep cultural and symbolic meaning to western Scottish communities. The artificiality of the island itself, for example, appears to have been important, as time and time again existing natural islands were ignored by crannog-builders who instead chose to build sites out on the water from scratch or by augmenting submerged natural features. In this way crannogs are perhaps comparable with the terrestrial settlements of the Atlantic Iron Age, which were built to be well-defined structures standing alone in the landscape. Terrestrial sites were built in prominent positions to be seen, but conversely were heavily defensive in appearance and difficult to access. Similarly, the siting of crannogs out on lochs provided highly visible locations but with restricted access. In this respect the appearance of crannogs represents the same concerns with expressing symbolic independence and monumentality seen on terrestrial Atlantic sites.

Recent work at Loch Arthur crannog in Dumfries and Galloway has revealed that the site was constructed on monumental proportions during the Iron Age (Fig. 3). Excavations uncovered a huge artificial mound, measuring around 40m by 30m and standing some 2.5m above the loch bed, composed of alder timbers in horizontal layers, weighed down with comminuted plant material, brushwood and stones in the classic *packwerk* style (Crone 2000, 105; Cavers 2007). Radiocarbon determinations taken from excavated timbers from the top, middle and bottom of the mound each returned closely similar dates spanning the period 400–100 BC (Henderson *et al.* 2006, 43–6; Henderson 2007a, 231–5). The concurrence of the dates strongly suggested that the massive artificial mound was constructed in one event during the Iron Age. No structural traces of what originally stood on this mound were revealed during the excavations,

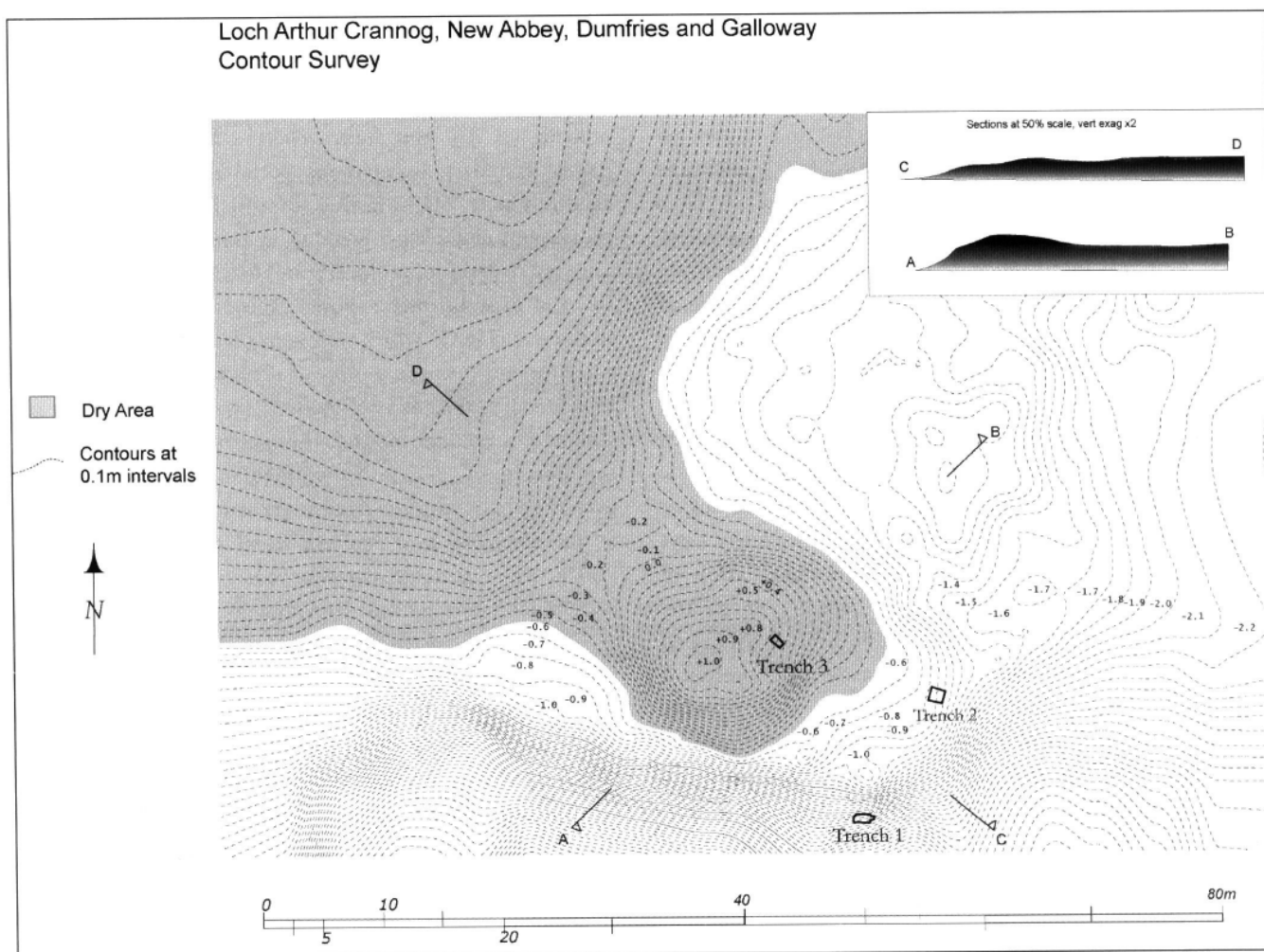


Fig. 3—Loch Arthur crannog, Dumfries and Galloway. Detailed survey demonstrated that the dry island sits on a long promontory, some 81m long and 46m wide, running north-west/south-east from the shore, which is constructed from horizontal layers of timber (alder and oak), creating an artificial island of monumental proportions (contours at 0.1m increments).

but certainly the considerable amount of labour and resources invested in the construction of the mound goes beyond that of pragmatic farmers building a functional farmstead.

The construction of a site on this scale brought new levels of meaning to the landscape. Quite apart from the final appearance and significance of the site itself, the act of construction is likely to have required a significant labour force, bringing people together and in the process creating, reinforcing or renegotiating social bonds within the local community. The construction of crannogs is a practice best viewed as being fully part of the Atlantic Iron Age tradition of building monumental domestic settlement forms (Harding 2004, 302). They can be considered variants of the

substantial house tradition, which includes Atlantic roundhouses, wheelhouses and island duns, built to reflect the importance of household-level groupings in the landscape. As such, they could reflect the existence of pre-eminent households (Barrett 1982; Sharples 1985; Níeke 1990), typical household forms related to land-holding (Armit 2002) or simply 'the identity of isolated households and their isolation from broader society and from nature' (Hingley 1992, 25). Whatever interpretation is preferred, it is certain that, like other substantial house forms, crannogs were more than passive domestic wrappers: they were built to be seen and to convey meaning. The western Scottish landscape would have been imbued with meaning and mythological narratives in the first millennium BC

(Henderson 2007b, 297–303). Community identities, mythologies and ancestral histories would have been represented at one level by the landscape itself (a significant part of which comprised freshwater lochs) and at another level through specific actions within that landscape (including the construction of crannogs).

As major 'constructed' features built in 'natural' lochs, which, as watery locations, were already likely to have strong religious associations, crannogs would have played an important role in structuring individual and community experiences (Fredengren 2002, 109–10). The introduction of man-made inhabited structures into watery settings, previously regarded as sacred and/or uninhabitable, must have had a profound impact on local groups and made important statements about the power and associations of the builders and inhabitants of the crannog. In many ways the crannog form can be considered the culmination of efforts to 'define the household in contrast to nature' (Hingley 1992, 17). Through combining water and monumentality, two aspects that already had profound meaning to communities, the construction and occupation of crannogs may have been a way of creating new levels of identity and differentiation in the landscape. Whether crannogs legitimised the authority of individuals or specific groups or instead were related to the communal identities of wider communities is far from clear at present. Indeed, either role is possible and they are not necessarily mutually exclusive. It is tempting to speculate that crannogs began to be constructed as recognisable symbols of community identity in the late Bronze Age but that by the first millennium AD and into the early historic period they represented individual households or élites who controlled access to more exotic artefacts. Whatever the case, there would have been ongoing negotiations in the use of crannogs between short-term political needs and adherence to long-term ideological structures. Ultimately, crannogs would have drawn their significance from their perceived role within a wider mythological landscape, and their permanence, use and reuse as substantial island constructions in that landscape would have helped to foster long-term continuities in meaning.

Reinvigorating and reusing islands

It is significant that to date no crannog that has been subject to any level of excavation has provided evidence of single-phase occupation. Although, as we have seen, the majority of

radiocarbon dates point to the later prehistoric period as the main phase of construction, the artefactual evidence from crannogs tends to date from the middle centuries of the first millennium AD and later. Where excavations have taken place, secondary occupations occur after clear phases of abandonment often lasting hundreds of years. Recent excavations at Ederline crannog in Loch Awe, for example, uncovered deposits radiocarbon-dated from c. 400 to 200 BC and early historic deposits calibrating to the fourth to sixth centuries AD which were separated by a clear inorganic silt layer indicating a period of abandonment (Cavers and Henderson 2005). At Loch Arthur crannog in Dumfries and Galloway a boulder mound, thought to represent the stone undercroft of a wooden-framed building, was built sometime in or after the fifteenth century AD directly on top of the extensive Iron Age *packwerck* crannog (Henderson 2007a, 231–5). Again the two phases were separated by a layer of loch silts indicating an abandonment phase (Fig. 4).

The excavated evidence to date suggests that crannogs were frequently returned to and put back into use long after they were abandoned. As Harding (2004, 305) has pointed out, renovating a ruined site would have involved considerable effort. The difficulty of driving new piles through a derelict and eroded stone and timber island suggests that, if pile-driving was required, constructing a new site from scratch would have been an easier option. It seems likely, therefore, that sites were returned to because they were still regarded as socially and symbolically meaningful locations in the landscape.

The apparent dominance of early historic finds, from mainly antiquarian investigations, contrasts with the Iron Age radiocarbon-dating evidence recovered from structural timbers and suggests that the reoccupation of Iron Age crannogs was particularly common in the early historic period. Significantly, the reuse of Iron Age sites in the first millennium AD is also a well-recognised phenomenon on terrestrial drystone settlements throughout Atlantic Scotland (Harding 2005, 169). Although the reuse of drystone sites may be related to their obvious advantages in providing building stone, the reuse of crannogs is less easily explained away. It seems likely that the reuse of both crannogs and terrestrial sites in western Scotland was a culturally meaningful practice. The use and reuse of artificial islet locations may hint at continuity in social practices and belief throughout western Scotland. Ritual beliefs and associations, in particular, are by their very nature less malleable to change and can be long-lasting, persisting over generations and

Ederline Crannog, Loch Awe, Argyll

Loch Arthur Crannog, Dumfries and Galloway

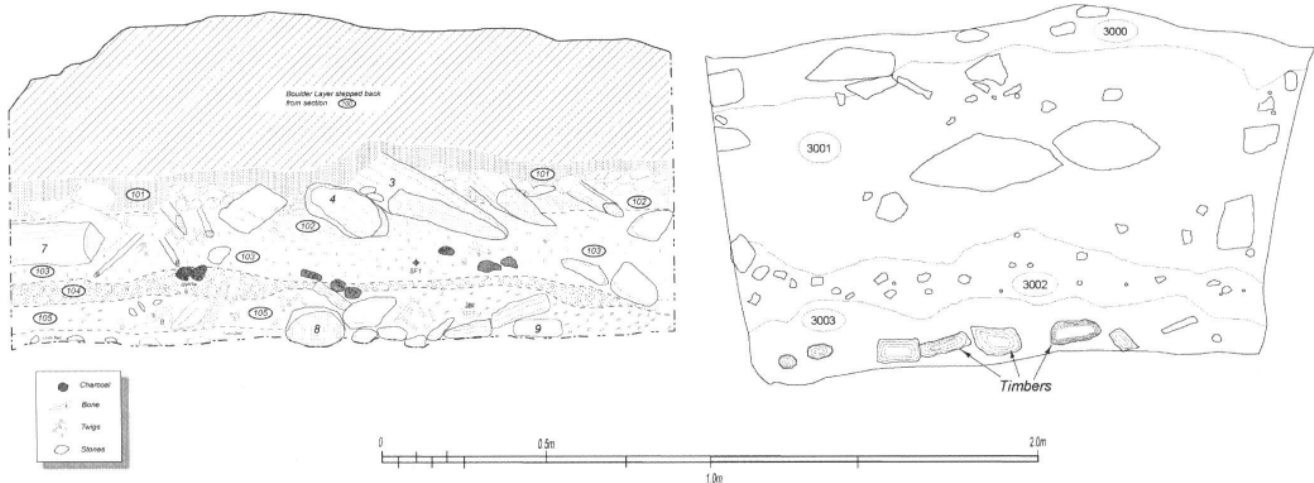


Fig. 4—Sections through excavated deposits at Ederline and Loch Arthur crannogs. At Ederline an inorganic silt layer (context 104) separates the upper early historic deposits (context 103) from the lower Iron Age deposits (context 105). At Loch Arthur a trench through the upper dry island (trench 3) revealed that the upper boulder mound (context 3001), built sometime in or after the fifteenth century AD, was separated by an inorganic silt layer (context 3002) from the *packwerk* mound (context 3003), built in one event during the Iron Age between 400 and 100 BC.

creating long-term continuities in the meaning of locations in the landscape. Through the reuse of earlier sites it is possible that later groups were drawing on the power and associations of the earlier monuments and past ancestors (Bradley 1991; 1993).

Crannogs were socially meaningful places in the landscape that reflected culturally specific ways of understanding the world. They were structures built according to existing social conventions with meanings that could have been 'read' by the communities that constructed and used them. As Frendengren (2002, 107–10) has observed, artificial islands in lochs were both a result of and a formative influence on human behaviour, and they worked to structure experience in particular ways. Social practices and, more importantly, narratives would have been created around the existence of a site, helping to embed community-level memory in the landscape. As a result, in common with other forms of Atlantic monumental settlement, crannogs would have played a role, both consciously and unconsciously, in the expression of indigenous Atlantic identities. The occurrence of crannog forms in Ireland is significant in this respect and demonstrates the existence of similar systems of social and ritual action in Ireland and western Scotland from at least the late Bronze Age (Cavers 2006). Crannogs therefore have a role to play, taken

alongside the similarities present in terrestrial settlement forms (Henderson 2007b, 150–204), in recognising the existence of maritime cultural contacts between the two areas through the first millennia BC and AD.

Conclusions

This paper has presented a reading of Scottish crannogs as part of Atlantic Iron Age settlement traditions. Through considering crannogs within the cultural context of the main period of their construction, it is possible to begin to interpret something of their social meaning and symbolic significance. In common with contemporary terrestrial settlements, crannogs display the same preoccupations with constructing isolated monumental domestic spaces that appear to emphasise the importance of independent household groupings. Equally, just as Atlantic roundhouses represent the merging of domestic and ritual space, crannogs would have taken on a more ritually charged significance through the act of placing 'man-made' domestic space in 'natural' freshwater lochs.

Crannogs were of course reused and constructed after the later prehistoric period, and it is likely that the form, functions and meanings of island settlements changed

through time. As was mentioned above, the reuse of artificial islands for domestic settlement appears to have been common in the early historic period. Crannogs at this time represent a cultural tradition and site form whose closest parallels are to be found in Ireland. The influence of the Irish Dál Riada is crucial to perceptions of Scottish identity in this period, and it is possible that the occupation of crannogs in western Scotland may form part of the as yet elusive evidence for domestic Dál Riadic sites. By the medieval period islands were frequently chosen as locations for castles and ecclesiastical buildings (Morrison 1985, 22–7). Whether the distinction in later periods can be considered important or not, at least some of these islands have demonstrably artificial foundations, such as Priory Island in Loch Tay (Dixon 1982, 20–2) and Castle Island in the Lake of Menteith (Henderson 1999, 275). In the post-medieval centuries and beyond, crannog islands continued to be used for specialised activities involving, for example, illicit stills, smuggling, duck-hides and fishing.

A large-scale consideration of the changing functions and social meanings of crannogs through time in a Scottish context remains an important future research priority. The meaning and significance of islets would have changed over time but their presence in the landscape would also have fostered deep-set cultural continuities. In a number of ways, crannogs can be considered more enduring monuments in the Scottish landscape than terrestrial settlements. Their location and association with lochs helps stories and mythologies about crannog settlements to persist in local memory. Lochs remain up to the present day focal points in the landscape where people gather, often for reasons related to leisure and relaxation. Even long after they have disappeared from view, the association of ancient settlement in lochs can persist in community memory, while sunken crannogs are often known to local boat-users and fishermen as navigational hazards or fishing stances. Equally, as Fredengren (2002, 110) has noted, the often distinct seasonal changes in loch levels mean that some crannogs can 'turn up in waters at unexpected times', creating a particular kind of lasting presence in the landscape. By virtue of their location and relative permanence, crannogs remain significant places in the Scottish landscape with an accepted connection to the past—even if that past is not particularly clear or is in some cases reinvented. For example, in 1995 the crannog on Loch Nell in Argyll was the focal point of a ceremony between the owners of Inverlona Estate and the Campbells of Loch Nell, supposedly marking the passing of

the feudal superiority of the crannog to the Campbells of Loch Nell so that they could re-establish a base in the area.

Living out on the water was a major part of life in Scotland over thousands of years, yet it is a cultural tradition that we still know remarkably little about. The construction, use and reuse of crannogs were major ways in which western Scottish communities inhabited, understood and used their surroundings. This paper has argued that to begin to understand crannogs we need to contextualise them, moving beyond functionalist interpretations and specialist discussions of taphonomy to consider crannogs as active, meaningful locations in the landscape. Although the significance of artificial islands extends up to the present day and demands further work, the clear dating of the main period of their construction to the later prehistoric period means that there is now little excuse for omitting crannogs from discussions of the western Scottish Iron Age.

References

- Armit, I. 1990 Epilogue: the Scottish Atlantic Iron Age. In I. Armit (ed.), *Beyond the brochs: changing perspectives on the Atlantic Scottish Iron Age*, 194–210. Edinburgh University Press.
- Armit, I. 1992 *The later prehistory of the Western Isles of Scotland*. British Archaeological Reports, British Series 221. Oxford.
- Armit, I. 1996 *The archaeology of Skye and the Western Isles*. Edinburgh University Press.
- Armit, I. 1997 *Celtic Scotland*. London. Batsford.
- Armit, I. 2002 Land and freedom: implications of Atlantic Scottish settlement patterns for Iron Age land holding and social organisation. In B. Ballin-Smith and I. Banks (eds), *In the shadow of the brochs: the Iron Age in Scotland*, 15–26. Stroud. Tempus.
- Armit, I. 2003 *Towers in the north: the brochs of Scotland*. Stroud. Tempus.
- Barrett, J.C. 1982 Aspects of the Iron Age in Atlantic Scotland: a case study in the problems of archaeological interpretation. *Proceedings of the Society of Antiquaries of Scotland* 111, 205–19.
- Barrett, J.C. 1999 The mythical landscapes of the British Iron Age. In W. Ashmore and B. Knapp (eds), *Archaeologies of landscape*, 253–65. Oxford. Blackwell.
- Bradley, R. 1991 Monuments and places. In P. Garwood, D. Jennings, R. Skeates and J. Toms (eds), *Sacred and*

- profane*, 135–40. Oxford Committee for Archaeology.
- Bradley, R. 1993 *Altering the earth. The origins of monuments in Britain and continental Europe*. Edinburgh. Society of Antiquaries of Scotland.
- Cavers, M.G. 2005 Crannogs and later prehistoric settlement in western Scotland. Unpublished Ph.D thesis, Department of Archaeology, University of Nottingham.
- Cavers, M.G. 2006 Late Bronze Age and Iron Age lake settlement in Scotland and Ireland: the development of the 'crannog' in the north and west. *Oxford Journal of Archaeology* 25 (4), 389–412.
- Cavers, M.G. 2007 The complexity of crannog taphonomy: old and new evidence. In J. Barber, C. Clarke, M. Cressey *et al.* (eds), *Archaeology from the wetlands: recent perspectives*, 243–52. Edinburgh. Society of Antiquaries of Scotland.
- Cavers, M.G. and Henderson, J.C. 2005 Underwater excavation at Ederline Crannog, Loch Awe, Argyll, Scotland. *International Journal of Nautical Archaeology* 34 (2), 282–98.
- Clapham, A.J. and Scaife, R. 1988 A pollen and plant macrofossil investigation of Oakbank crannog, Loch Tay, Scotland. In P. Murphy and C. French (eds), *The exploitation of wetlands*, 293–325. British Archaeological Reports, International Series 186. Oxford.
- Coles, J.M. 1960 Scottish Late Bronze Age metalwork: typology, distributions and chronology. *Proceedings of the Society of Antiquaries of Scotland* 93, 16–134.
- Crone, B.A. 2000 *The history of a Scottish lowland crannog: excavations at Buiston, Ayrshire, 1989–90*. STAR Monograph 4. Edinburgh.
- Crone, [B.]A. 2007 'From indirections find directions out': taphonomic problems at Loch Glashan crannog, Argyll. In J. Barber, C. Clarke, M. Cressey *et al.* (eds), *Archaeology from the wetlands: recent perspectives*, 223–30. Edinburgh. Society of Antiquaries of Scotland.
- Crone, B.A. and Campbell, E. 2005 *A crannog of the first millennium AD: excavations at Loch Glashan by Jack Scott, 1960*. Edinburgh. Society of Antiquaries of Scotland.
- Crone, B.A., Henderson, J.C. and Sands, R.J.S. 2001 Scottish crannogs: construction, conflation and collapse: problems of interpretation. In B. Raftery and J. Hickey (eds), *Recent developments in wetland research*, 55–67. Department of Archaeology, University College Dublin.
- Cunliffe, B.W. 2001 *Facing the ocean. The Atlantic and its peoples, 8000 BC–AD 1500*. Oxford University Press.
- Dixon, T.N. 1982 A survey of crannogs in Loch Tay. *Proceedings of the Society of Antiquaries of Scotland* 112, 17–38.
- Dixon, T.N. 2004 *Scottish crannogs: an underwater archaeology*. Stroud. Tempus.
- Dixon, T.N. 2007 Crannog structure and dating in Perthshire with particular reference to Loch Tay. In J. Barber, C. Clarke, M. Cressey *et al.* (eds), *Archaeology from the wetlands: recent perspectives*, 253–66. Edinburgh. Society of Antiquaries of Scotland.
- Fredengren, C. 2002 *Crannogs: a study of people's interaction with lakes, with special reference to Loch Gara in the north-west of Ireland*. Bray. Wordwell.
- Green, M. 1986 *The gods of the Celts*. Gloucester and New Jersey. Sutton Publishing.
- Harding, D.W. 2000 Crannogs and island duns: classification, dating and function. *Oxford Journal of Archaeology* 19 (3), 307–17.
- Harding, D.W. 2004 *The Iron Age in northern Britain: Celts and Romans, natives and invaders*. London. Routledge.
- Harding, D.W. 2005 The Iron Age in Atlantic Scotland and the western seaways. In W. Gillies and D. W. Harding (eds), *Celtic connections, volume 2: archaeology, numismatics and historical linguistics*, 166–80. University of Edinburgh.
- Harding, D.W. and Dixon, T.N. 2000 *Dun Bharabhat, Cnip: an Iron Age settlement in west Lewis*. Calanais Archaeological Research Monographs No. 2. University of Edinburgh.
- Henderson, J.C. 1998 Islets through time: the definition, dating and distribution of Scottish crannogs. *Oxford Journal of Archaeology* 17 (2), 227–44.
- Henderson, J.C. 1999 A survey of crannogs in the Lake of Menteith, Stirlingshire. *Proceedings of the Society of Antiquaries of Scotland* 128, 273–92.
- Henderson, J.C. 2007a Recognising complexity and realizing the potential of Scottish crannogs. In J. Barber, C. Clarke, M. Cressey *et al.* (eds), *Archaeology from the wetlands: recent perspectives*, 231–41. Edinburgh. Society of Antiquaries of Scotland.
- Henderson, J.C. 2007b *The Atlantic Iron Age: settlement and identity in the first millennium BC*. London. Routledge.
- Henderson, J.C., Cavers, M.G. and Crone, B.A. 2006 The South West Crannog Survey. Recent work on the lake dwellings of Dumfries and Galloway. *Transactions of the*

- Dumfries and Galloway Natural History and Antiquarian Society* 80, 29–51.
- Hingley, R. 1992 Society in Scotland from 700 BC to AD 200. *Proceedings of the Society of Antiquaries of Scotland* 122, 7–53.
- Hingley, R. 1995 The Iron Age in Atlantic Scotland: searching for the meaning of the substantial house. In J. D. Hill and C. Cumberpatch (eds), *Different Iron Ages: studies in the Iron Age of temperate Europe*, 185–94. British Archaeological Reports, International Series 602. Oxford.
- Holley, M. 2000 *The artificial islets/crannogs of the central Inner Hebrides*. British Archaeological Reports, British Series 303. Oxford.
- Hunter, F. 1997 Iron Age hoarding in Scotland and northern England. In A. Gwilt and C. Haselgrove (eds), *Reconstructing Iron Age societies*, 108–33. Oxford. Oxbow.
- Miller, J. 2002 The Oakbank crannog: building a house of plants. In B. Ballin-Smith and I. Banks (eds), *In the shadow of the broch: the Iron Age in Scotland*, 35–43. Stroud. Tempus.
- Morrison, I. 1985 *Landscape with lake dwellings*. Edinburgh University Press.
- Munro, R. 1882 *Ancient Scottish lake-dwellings or crannogs*. Edinburgh.
- Nieke, M.R. 1990 Fortifications in Argyll: retrospect and future prospect. In I. Armit (ed.), *Beyond the brochs: changing perspectives on the Atlantic Scottish Iron Age*, 131–42. Edinburgh University Press.
- Parker Pearson, M. and Sharples, N. with Mulville, J. and Smith, H. 1999 *Between land and sea: excavations at Dun Vulan, South Uist*. Sheffield Academic Press.
- Piggott, C.M. 1953 Milton Loch Crannog: a native house of the second century AD in Kirkcudbrightshire. *Proceedings of the Society of Antiquaries of Scotland* 87, 134–52.
- Sharples, N. 1985 Excavations at Pierowall Quarry, Westray, Orkney. *Proceedings of the Society of Antiquaries of Scotland* 114, 75–125.
- Webster, J. 1995 Sanctuaries and sacred places. In M. Green (ed.), *The Celtic world*, 445–64. London. Routledge.

A Colossus of Roads: the Iron Age archaeology of Ireland's peatlands

Conor McDermott, Caitríona Moore, Cara Murray, Gill Plunkett and Michael Stanley

Introduction

The discovery in 1984 and the scientific dating of the great Iron Age road at Corlea, Co. Longford, was only the second instance in which a certain prehistoric date had been demonstrated for an Irish trackway or togher (Raftery 1990, 6; Tohall *et al.* 1955). When Barry Raftery first visited Corlea Bog in 1985 the site represented the sole trackway from Ireland's bogs datable to the Iron Age (148 BC). It is almost 25 years since then, and in the intervening period there have been many new discoveries but also persistent absences in the archaeological record of the period.

The excavation of Corlea 1 and Barry's growing involvement in the development of peatland archaeology thereafter struck the authors as an appropriate subject for this volume, combining two of his chief research interests—the Iron Age and wetland archaeology: namely, what has been learned about this elusive period through Barry's early wetland investigations, the survey and excavation work of the Irish Archaeological Wetland Unit (IAWU), which he helped establish in 1990, and other research and development-led projects that have followed since?

Prior to Barry's work, records of toghers were mainly restricted to a number of limited investigations conducted by Professor Etienne Rynne and others on behalf of the National Museum of Ireland on sites such as the trackway at Broughal, Co. Offaly, and the Iron Age road at Derraghan More, Co. Longford, later investigated further by Barry (Rynne 1961–3; 1964–5; 1965; Lucas 1985, 39; Raftery 1996, 94, 423; Brindley and Lanting 1998). For centuries wetland contexts have produced many of the most striking collections of Iron Age metalwork and other materials but many of these appear to be votive in nature (Raftery 1994, 194) and little structural evidence was known:

'... the great bulk of prehistoric Irish toghers were laid down during the long centuries of the Bronze Age... Significantly, there is a marked fall-off in togher construction after about 800 BC. Of the small number which occur after this date, most are of the most ephemeral type—loose scatters of brushwood...

Indeed, in the millennium centred on the birth of Christ there is only a single significant togher known from Ireland, the great Iron Age road, Corlea 1/Derraghan... (Raftery 1996, 413).

Barry Raftery's last peatland excavations were conducted in 1991, and since then there have been a wide variety of wetland projects in Ireland that have drawn on a renewed appreciation of wetland sites that his work helped to generate. Surveys and excavations have been undertaken in peatland, estuarine, lacustrine and riverine environments and on archaeological sites where conditions are favourable to the survival of organic remains. Taken together, the results of recent research and development-led projects have greatly increased our understanding of wet environments in the past (e.g. Gowen *et al.* 2005; Fredengren 2002; Moore 2008; O Carroll 2001; O'Sullivan 1998; 2001; 2007; Wilkins 2007), but the Iron Age wetlands still pose questions, particularly for the first six centuries AD.

Peatland archaeology in Ireland

The history and development of peatland archaeology in Ireland has been commented upon previously (Raftery 1999; Stanley 2003, 64–7; O'Sullivan 2007, 150–4); that Barry's contribution to its successful growth stands second to none is clearly evident. Beginning with his own survey and excavation programme in counties Longford and Galway in the late 1980s (Raftery 1990; 1996), culminating in the establishment of the IAWU in 1990, and in his roles as IAWU Executive Director and academic consultant to the Lisheen Archaeological Project, which conducted extensive excavations in Derryville Bog, Co. Tipperary (Gowen *et al.* 2005), Barry has exhibited a long-term commitment to the investigation of Ireland's peatland heritage and to arresting in some part its 'silent destruction'. To borrow his own playful pun, in the history of Irish peatland archaeology following his description of the Corlea Road (1996, 418), it is he who should honourably be regarded as the 'Colossus of Roads'.

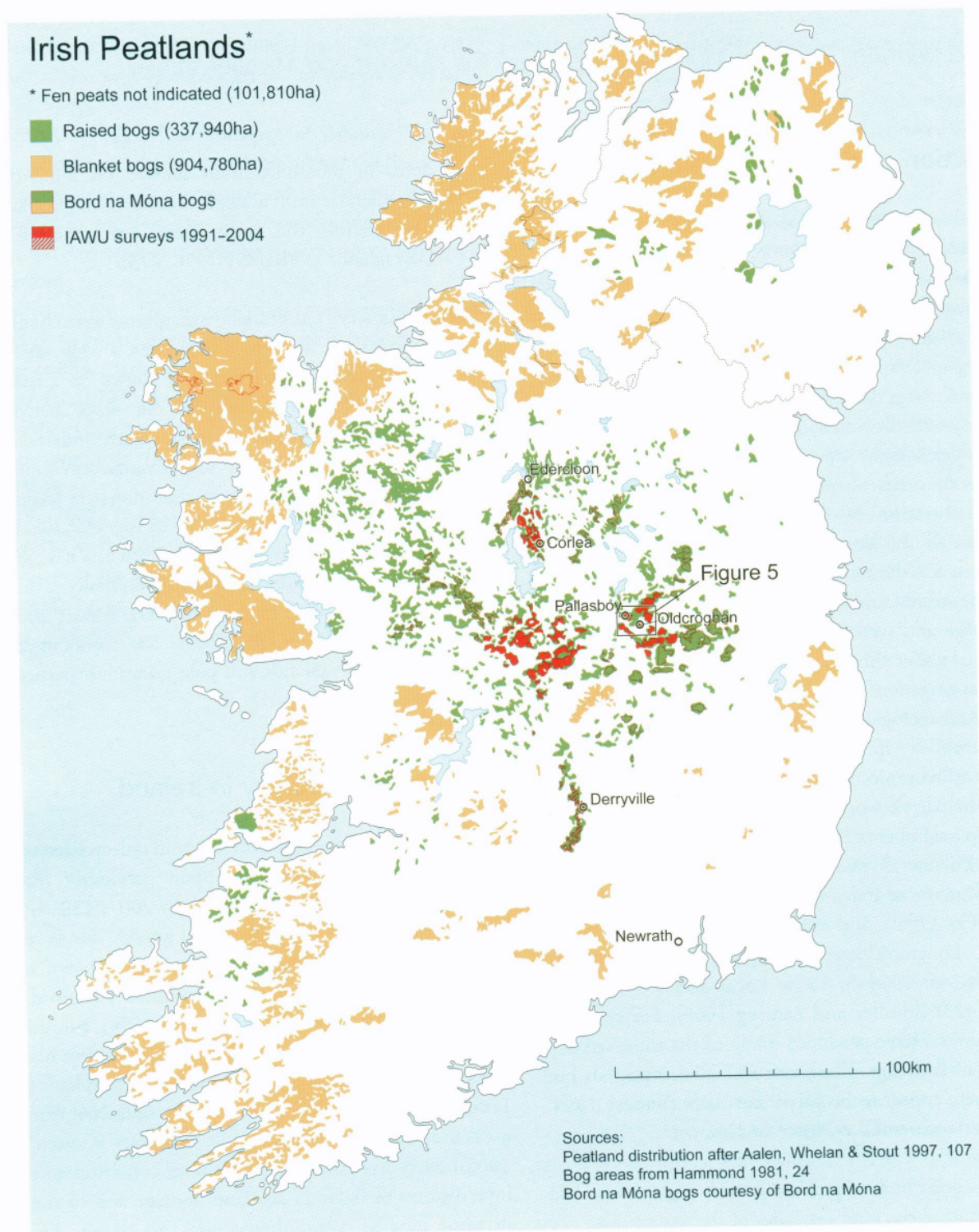


Fig. 1—Map of Ireland, showing the extent of IAWU peatland surveys, the principal sites referred to in the text and the location of Fig. 5.

The foundation of the IAWU as a joint venture between the Office of Public Works and University College Dublin was an almost immediate product of Barry's Longford investigations. The core brief of the IAWU was to survey the industrial peatlands owned by Bord na Móna (BnM), the State peat company, who extract peat on an industrial scale for a variety of purposes (e.g. IAWU 1993a; 1997; 1998; 2000a; 2002; McDermott, Murray *et al.* 2002; Murray *et al.* 2002). In addition, the IAWU also investigated many wetland discoveries throughout the country and undertook selective excavations on occasion (e.g. IAWU 1993b; 1995; Bermingham and Delaney 2006; O Carroll 1997; Stanley 2000; Whitaker 1998). After fifteen years in operation the IAWU disbanded in 2005 (Fig. 1). The digital and physical archive of almost 3,500 sites documented by the IAWU now resides with the National Monuments Service of the Department of the Environment, Heritage and Local Government and forms part of the Sites and Monuments Record (McDermott 2007). This considerable legacy is a direct result of Barry's peatland investigations. As of 1999, the IAWU's surveys and excavations were complemented by a number of developer-led excavations and re-surveys undertaken by BnM's archaeological consultants, Archaeological Development Services Ltd (ADS Ltd), who effectively continue the work of the IAWU today in relation to BnM bogs (Anon. 1999; O Carroll 2001; O Carroll and Whitaker 1999; Turrell and Whitaker 2007).

Making tracks into the Iron Age

Peatland structures

In addition to these broader achievements, surveys conducted in Longford during the investigation at Corlea 1 led to the discovery and excavation of four additional Iron Age structures (Raftery 1996, 423), comprising short, insubstantial trackways. These surveys also resulted in the identification, excavation and dating of a surviving portion of a trackway at Derraghan More, 2km west of Corlea Bog, which was of similar date, scale and construction to Corlea 1. This site had been investigated previously in 1957 by Rynne (Raftery 1996, 94–104), and, as the two structures are believed to be related, they were subsequently being referred to as the Corlea–Derraghan road (Raftery 1990, 40). Of these six trackways, five date from the early Iron Age and one from the late Iron Age. Importantly, these

excavations also represent an early example of the integration of broad-based palaeoenvironmental studies with archaeological investigations in Ireland (see below).

Surveys and excavations by the IAWU have also increased the number of Iron Age sites identified in Ireland's bogs. Of the small proportion of sites submitted for dating, Iron Age dates have been returned for peatland structures in counties Offaly, Tipperary and Westmeath (McDermott 2001; Plunkett and McDermott 2007). It is quite certain that many other structures closely associated with these dated sites are also of Iron Age date, perhaps representing several hundred in number. Examples of concentrations of sites with predominantly Iron Age dates have been recorded in Cooleeny townland, Derryville Bog, Co. Tipperary (IAWU 1996, 11; Cross May *et al.* 2005a, 69, 72), Pallasboy townland, Toar Bog, Co. Westmeath (IAWU 2000b; Murray 2002), and Clonarrow or Riverlyons townland, Mountlucas Bog, Co. Offaly (IAWU 2003, 51–2). In addition, ongoing surveys and excavations conducted by ADS Ltd continue to identify new sites dating from across the Iron Age but particularly from the last half-millennium BC (Plunkett *et al.*, in prep.). Development-led peatland investigations have also identified numerous Iron Age toghers and platforms (see below for a full discussion of the discoveries made at Derryville by the Lisheen Archaeological Project and during excavations at Ederclon, Co. Longford).

To date, the majority of recorded Iron Age wetland structures have been found in peatlands, but sites of this period are also beginning to be identified in other wetland environments. At Newrath, Co. Kilkenny, the earliest evidence is from the Mesolithic period, with activity recurring at the site in the Bronze Age, when a range of sites were constructed in reed-swamp. By the early Iron Age the environment had evolved into a salt-marsh that was accessed by a hurdle trackway that served to bridge a small tidal creek (Wilkins 2007, 68–70; Carter 2007, 50–2; Timpany 2008, 22–3). This may have provided a means to exploit the resource-rich zone and nutritious salt-marsh grazing.

Artefacts and bodies

The Corlea 1 excavations also produced a varied and closely dated assemblage of Iron Age wooden artefacts (Raftery 1996, 231ff). These included a mallet and wedge associated with the construction of the road, fragments of wooden vessels and a portion of an ard. In addition to these, a composite object with complex joinery and a highly stylised

anthropomorphic figure were recovered, both of which remain unique to the period in Ireland.

The practice of the deposition of butter in bog is considered to have its origins from at least as early as the Iron Age (Earwood 1997; Synott and Downey 2004). There are an estimated 500 butter finds from the country and in recent studies new dates have been produced, bringing the number of Irish dated examples to seventeen. Remarkably, nine of these have produced Iron Age dates, from 500 BC–AD 500 (Downey *et al.* 2006; Cronin *et al.* 2007), showing this to be a significantly Iron Age phenomenon. In addition to the dated examples, new finds continue to be made annually, some of which are contained in wooden vessels of recognisably Iron Age form (Earwood 1997; McDermott, Murray *et al.* 2002). During its surveys the IAWU recovered or recorded at least nine finds of butter, and many of these too are arguably Iron Age in date.

In the centuries preceding this (*c.* 650–500 BC), further evidence of agriculture is demonstrated by a series of animal yokes recovered mainly from bog contexts. Three of the sixteen yokes from Ireland have been dated and all fall partly within this period, with another example likely to be Iron Age in date on stylistic grounds (Stanley *et al.* 2003). Recent excavations at Annaholty Bog, Co. Tipperary, have uncovered a substantial Iron Age road, dated to *c.* 40 BC, with a range of associated artefacts, including a broken yoke of ash (Taylor 2008, 55), further confirming the predominantly late prehistoric dates for these objects.

Perhaps the most dramatic Iron Age finds to come to light in recent years have been the bog bodies of Oldcroghan Man, Co. Offaly, and Clonycavan Man, Co. Meath. They were discovered within months of each other in 2003 and together provide conclusive evidence of human sacrifice, dismemberment and deposition in bogs, and are the subjects of intensive interdisciplinary studies (Kelly 2006). Up to that point Ireland was conspicuously absent among the group of peatland-rich, north-west European countries with unambiguous sacrificial bog bodies of the period 500 BC–AD 500 (Turner and Briggs 1986; Ó Floinn 1988; 1995a; 1995b; Raftery 1994; van der Sanden 1996). In both cases only parts of the bodies were deposited and, despite the best efforts of investigators, no further remains were retrieved (Corcoran 2003; Moore and McDermott 2003; Kelly 2006). A previously discovered Iron Age body from Gallagher, Co. Galway, was noted as having a band of willow twigs around the neck, suggesting strangulation, and may have been staked in place. Since first discovered in 1821 the

body has deteriorated to such an extent that no firm conclusions can be drawn, which is regrettable, as 'had they been preserved in the state as first discovered, no museum could have boasted a more valuable example of early man and his clothing' (Wood-Martin 1902, 111).

Iron Age settlement and votive sites

The number of artefacts recovered from non-settlement excavations in Irish wetlands is generally quite low, and this stands in contrast with the Iron Age sites at Corlea, Derryville, Edercloon and Annaholty Bogs (see below). Taken together, these represent an important assemblage of wooden vessels, parts of vehicles, agricultural and craft implements and suggestions of votive activity. These suggest some of the remarkable potential that might be realised if a votive or settlement site of Iron Age date can be found and appropriately investigated in an Irish wetland context.

Many of the most important examples of Irish Iron Age metalwork have been recovered from rivers, lakes and bogs, including the important assemblage from Lisnacrogher in Antrim, discovered in 1882, that was probably a votive depositional site and later an early medieval crannog (Raftery 1994, 184; O'Sullivan 1998, 98). A range of metalwork from the period has also been recovered associated with wetland settlement sites of earlier periods, but to date no Iron Age wetland settlement has been firmly identified or investigated. With regard to metalwork, another noteworthy gap in the peatland archaeology record is the general absence of firm evidence of trackways being used to access and extract bog iron ore (limonite, hydrated iron oxide), which is assumed to have been one of the main sources of iron in the period in Ireland (Jackson 1991) and on the Continent (Casparie 1984; 1993). While extraction sites would be difficult to identify, one possible prehistoric bog iron ore site was uncovered near Clonaslee, Co. Laois, in 1871, where several extremely long wooden shovels were found in a bog iron deposit (Jackson 1991; Feehan and O'Donovan 1996, 100).

In general, settlement activity in Irish wetland contexts is particularly well documented in the later Bronze Age and in the early medieval period and includes sites such as Clonfinlough and Ballintemple, Co. Offaly (IAWU 1993b; McDermott, Moore *et al.* 2003; Stanley & Moore 2004; Turrell and Whitaker 2007). The potential for similar discoveries of Iron Age date has been suggested by

radiocarbon dates from timbers at three sites in Lough Gara (Fredengren 2000; 2002).

Internationally, wetland sites of the period show the potential that can be realised when sites rich in structures or artefacts are investigated. The lakes and peatlands of Denmark have a long tradition of discoveries of Iron Age bodies (van der Sanden 1996) and sites with extraordinarily rich assemblages of artefacts. Since the first discoveries were made in 1859 up to more recent excavations concluded in 1999, the wetland votive site of Nydam, for example, has produced ships, swords, spears, lances, bows, axes and shields, all in states of near-perfect organic preservation (Rieck 1999). Throughout Britain important sites have also been investigated. These include the Iron Age villages of Glastonbury and of Meare East and West in Somerset (Coles and Coles 1986; Minnitt and Coles 1996), the ritual deposition site at Llyn Cerrig Bach in north Wales (Fox 1946; MacDonald 2007) and crannogs of Iron Age date in Scotland, such as Oak Bank (Dixon 2004).

After Corlea: integrating wetland archaeology in Ireland

While the identification of individual sites through archaeological survey and the study of artefacts have added to our understanding of the period, excavations at both small and large scales offer perhaps the greatest potential. This is particularly the case when these investigations are carried out following informed theoretical, methodological and multidisciplinary approaches. A number of case-studies are presented below that reflect how this potential has been realised on projects following from Barry Raftery's excavations.

Derryville Bog

One of the largest complexes of prehistoric peatland sites in Ireland was identified in the mid-1990s in Derryville Bog, Co. Tipperary, in advance of a mining development. The initial site assessments were conducted by the IAWU and the subsequent large-scale investigations and studies were undertaken by Margaret Gowen and Co. Ltd as the Lisheen Archaeological Project (Gowen *et al.* 2005). This integrated archaeological and palaeoenvironmental project (Caseldine 2005; Caseldine *et al.* 2005; Casparie 2005; Stuijts 2005; Reilly 2005) represented a step up in the levels of funding and environmental studies in advance of development that has

only recently been paralleled at sites such as Newrath and Edercloon (see below).

The complex of sites at Derryville shows an increasing intensity of activity, starting with a small number of Neolithic sites and reaching its peak in the Iron Age but with a pronounced hiatus from the first century BC until the beginning of the early medieval period (Cross May *et al.* 2005a). The construction, use and abandonment of sites were intricately linked to the prevailing, and sometimes dramatically changing, hydrological and environmental regimes of the bog. This can be seen in the relationship between the archaeological sites and the development of the bog, which was punctuated by a sequence of five bog-bursts between 2200 and 100 BC (Casparie 2005, 25). The purpose for the construction of the bulk of these sites (trackways and platforms) appeared to be the exploitation of the marginal woodland and fen areas of Derryville Bog.

Tool-mark evidence indicated that iron tools were employed at sites in the bog by at least the mid-seventh century BC (Ó Néill 2005, 337). From the period 650–460 BC, eight of the short trackways and platforms excavated were located in the marginal woodlands on the western and eastern sides of the bog, and a large causeway (Cooleeny 31) was constructed to cross the bog system. It was built not long before a bog-burst at c. 600 BC destroyed a section of the causeway. A range of unexcavated structures in a large complex of sites surveyed in marginal woodland at the south-western end of this causeway also date from the earliest phases of the Iron Age (IAWU 1996, 11; Cross May *et al.* 2005a, 68).

At Lisheen there is clear continuity of types and uses of peatland structures from the later Bronze Age and Iron Age, although the transition is punctuated by the disappearance of *fulachta fiadh* (burnt mounds) (Cross May *et al.* 2005d). A range of artefacts were recovered from the Bronze Age–Iron Age transition and early Iron Age periods, including a spear-shaft of yew and a number of dressed, perforated or pommel-ended shafts (Buckley *et al.* 2005). Tantalisingly, the project also excavated a late Iron Age roundhouse on the adjacent dryland (Cross May *et al.* 2005b, 296), although there was no comparable wetland material as no sites could be assigned to the period between AD 50 and 650 (Cross May *et al.* 2005a, 57).

The Pallasboy vessel

During the IAWU survey of Toar Bog in summer 2000, a unique Iron Age wooden vessel was discovered in Pallasboy

townland, Co. Westmeath (Murray 2000; Moore *et al.* 2003, 134–6). It comprises a rectilinear trough with a curved base and sides, and surviving at one end is a beautifully crafted, perforated block handle, extending below the rim (Fig. 2). A similar handle at the opposing end had been partially destroyed prior to discovery. The vessel, 1.3m long and 0.6m in width, was finely carved from a single piece of alder from an unusually mature tree (more than 56 years old). There is evidence of skilful repair during its construction and subsequent use. About 197 cal. BC–cal. AD 68 (UCD-00119, 2045 ± 45 BP; Murray 2002) the vessel was transported into Toar Bog using withy ropes of hazel, deposited there and fixed into position with three stakes, each over 2m in length. Palaeoenvironmental analysis of the find-spot indicates that the Pallasboy vessel was placed at some remove from areas of settlement or agricultural activity (see below).

Van der Noort and O'Sullivan (2006, 105–6) have suggested that the vessel may initially have been a prestige item intended to be impressively and uniquely large, used for some high-status activity such as the display of fine foods during feasting or for some specific ritual event. Once damaged, they propose, the vessel took on a more prosaic, domestic function and social meaning before it was ritually disposed of. Other possibilities are that the vessel was a functional item during this largely aceramic period and it could have been used for a range of tasks, such as cooking, tanning or dyeing. In interpreting the cultural biography of the vessel, metaphorical links between its treatment and that of certain Iron Age bog bodies have also been drawn (O'Sullivan and Van der Noort 2007, 72). The deposition of an anthropomorphic figure within the substructure of Corlea 1 (Raftery 1996, 286) may have been imbued with similar symbolic meaning. Comparable explanations have also been suggested for anthropomorphic wooden figures deposited in wetlands during the Bronze Age (Stanley 2007, 190).

Iron Age Edercloon

The great value and contribution of Barry's work in the midland bogs became never more apparent than during excavations at Edercloon, Co. Longford, in 2006. Edercloon lies just south of the County Leitrim border and the village of Roosky, and, significantly, is located c. 25km north-west of the Mountdillon Bogs, where Barry conducted his excavations in 1985–91 (Raftery 1996). Excavations at Edercloon were undertaken by Caitríona Moore for Cultural

Resource Development Services Ltd in advance of the construction of the N4 Dromod–Roosky Bypass by the National Roads Authority. The work took place over five months in reclaimed raised bog in which archaeological deposits had been identified during test-trenching. Within days of commencement it became clear that this narrow tract of wetland contained a large number of well-preserved wooden trackways and platforms, the extent and significance of which have opened new avenues of research into the use and exploitation of raised bogs in Ireland's prehistoric past.

Forty-six individual structures were uncovered, the most common and largest of which were 26 trackways, followed by five platforms of varying scale and fifteen small deposits of archaeological wood (Fig. 3). The sites were contained within an excavation area 170m long and 30m wide and represent one of the densest archaeological complexes ever investigated in Ireland's raised bogs. The trackways varied from very large, multi-layered constructions to simple, short structures built almost entirely with brushwood and roundwoods, split timbers being largely absent. The complex dates from the Neolithic to the early medieval period, with a marked focus of activity during the centuries from the late Bronze Age to the early Iron Age (Moore 2008). Twelve sites have been radiocarbon-dated to between 800 BC and 160 BC. Given the relative proximity of Edercloon to Corlea, comparisons are both apposite and inevitable. While there are some remarkable similarities, these are more striking in sites of the Neolithic period and early Bronze Age; during the Iron Age, Edercloon would appear to represent something very different.

The dominant orientation of trackways at Edercloon was north–south, significant as the closest dryland lies approximately 50m to the east. The largest trackways that date from the Iron Age or have Iron Age levels ran in this direction. The sequence of construction of the sites was highly unusual, as the trackways changed direction and frequently criss-crossed or merged, in the latter case possibly forming platforms. This suggests that traversing the bog was not the function of these sites; rather, access to the wetlands was sought to create spaces where people could gather to perform tasks ranging from the mundane to the ritual. Environmental factors may also have played a part in dictating the site distribution, as certain treacherous areas were carefully avoided.

Another notable aspect of these trackways was the great depth of construction evident; several measured over 1.2m deep. Built with less formality and cohesive structure than



Fig. 2—The Pallasboy vessel from Toar Bog, Co. Westmeath, shown during excavation and post-excavation recording. Although damaged and crushed by modern machinery, the quality of preservation of the vessel is excellent, retaining fine dressing and the withy ropes used to lift and secure it in place. Analysis showed that a minimum of seven tools were used in its manufacture and that later a repair panel had been stitched to the outside (photographs and tool-mark drawings by IAWU; vessel profile drawing by Simon Dick).

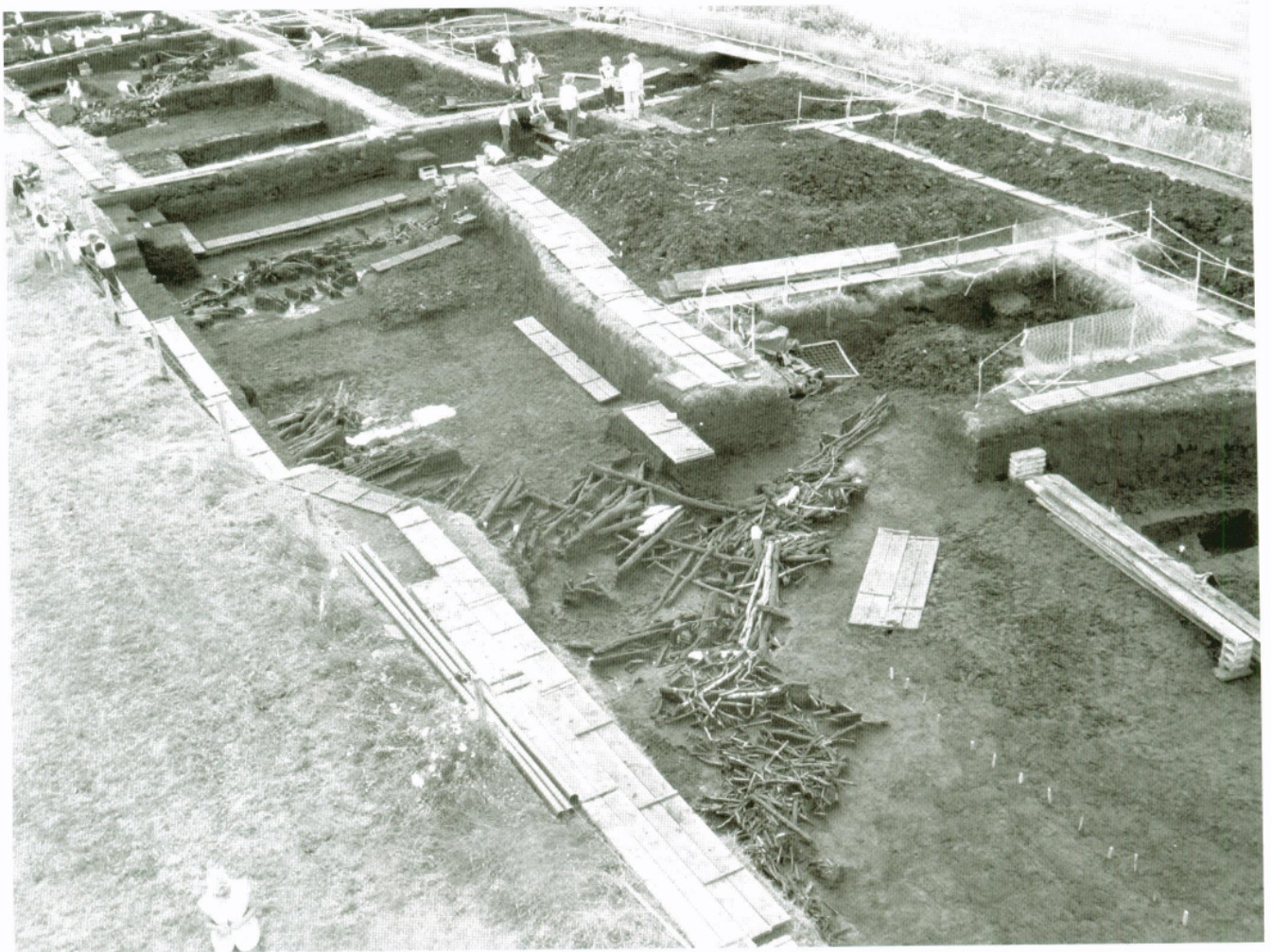


Fig. 3—Overview of part of the Edercloon excavations, Co. Longford, showing converging Iron Age structures forming part of a complex of 48 sites in 28 excavation trenches (photograph courtesy of CRDS Ltd).

many of the Corlea trackways, the scale of these sites does, however, suggest a communal undertaking. Dendrochronological and radiocarbon dating results from two sites in particular suggest that they were in continual use and frequently replenished and rebuilt from the Bronze Age to the Iron Age. This reinforces the idea that Edercloon was the domain and sometime focus of a community to whom the complex was important enough to maintain and preserve over centuries, with the knowledge and duty passed from generation to generation.

A further indication that Edercloon was a place of some significance is demonstrated by the wealth of objects deposited within the sites. Fifty-one artefacts, 49 made from wood, were found buried throughout several layers of the sites but predominantly at the base. Many represent the

fragmentary remains of everyday objects such as bowls, including fragments of an alder tub with a croze and a carved handle, for which there is only one Irish parallel (Earwood 1993, 57). Similar fragments, but without the handle, were, however, found within Corlea 1 (Raftery 1996, 231–9). A second and somewhat more unusual artefact was a crude club or mallet of willow from a trackway radiocarbon-dated to 390–170 cal. BC (2200 ± 39 BP; Wk-20201). This artefact finds its only Irish parallel in the Corlea 1 assemblage (Raftery 1996, 247) but unlike the Corlea example appears not to have been used. The recovery of three wheel fragments from three separate sites at Edercloon was the first instance in Ireland of wheels being found in direct association with a trackway, although none of the Edercloon trackways were suitable for wheeled vehicles. One



Fig. 4—Wheel rim fragment from an Iron Age composite wheel recovered at Edercloon (photograph by John Sunderland).

of the fragments is an unfinished portion of a Bronze Age block wheel, while the others are likely to have been composite wheels dating from the Iron Age and early medieval periods (Fig. 4).

The prehistoric practice of depositing objects in wet places has been well documented in Ireland (e.g. Bourke 2001); on trackway excavations the discovery of associated artefacts does occur but is not all that common. The occurrence of so many objects along relatively short stretches of trackway (the maximum excavated length at Edercloon was 30m, the width of the road corridor) is, however, unusual and suggests a strong degree of intent. Broken or

incomplete objects, the category into which most of the Edercloon objects fit, found in the basal layers of trackways are often explained as rubbish used as substructural fill, but perhaps these deposits have some symbolic meaning. At Edercloon artefact deposition was recorded in sites dating from the Bronze Age through to medieval times, again suggesting continuity of practice and community tradition. It is notable, however, that a preponderance of such finds has been made during the investigation of other Iron Age trackways and platforms (Raftery 1996, 231–62; Buckley *et al.* 2005, 311–18; Taylor 2008, 55). At Edercloon the deposition of two yew spear-shafts in close proximity to each

other within the same trackway as that which contained the mallet may have purely ritual significance. Neither of these highly finished objects appeared to have been used but both had been broken along their length. A fragmentary yew spear-shaft recovered from a late Bronze Age–Iron Age trackway in Derryville Bog has also been classified tentatively as a potential votive deposit (Buckley *et al.* 2005, 312–13; Cross May *et al.* 2005c, 351).

Edercloon is one of the most intriguing and important wetland sites excavated in Ireland to date and is only beginning to be understood. It has demonstrated very clearly that the centuries of the late Bronze Age and early Iron Age were a time when the bog was not necessarily or always seen as a barrier, but rather as a place to be used, exploited and perhaps even enjoyed. While different from Corlea in many ways, the Edercloon excavations owe much to the work of Barry, whose extensive research and publication laid out methodologies of recording, sampling and understanding, invaluable to those attempting to follow in his footsteps. Barry visited Edercloon on several occasions and, while his advice and input were both greatly appreciated, his joy at once again seeing the trackways of Longford's bogs excavated was obvious, and his enthusiasm was unsurpassed. Edercloon has not answered the many questions surrounding Ireland's Iron Age but, as Barry's excavations did at Corlea, has highlighted once more the great wealth of material in our peatlands and provided an insight into the multiple roles they played in the lives of prehistoric people.

The environmental context

Prior to the Corlea project, a small number of palaeoenvironmental investigations had been carried out in conjunction with disparate trackway excavations (van Zeist 1955; Mitchell 1956, 205–6; Parkes and Bradshaw 1988). The early to middle Bronze Age single-plank walkway at Corlona, Co. Leitrim, was deemed to have been built in response to wetter conditions on the bog (van Zeist 1955). A similar conclusion was reached for several late Bronze Age trackways from the Somerset Levels in Britain (Godwin 1960). More recently, on the basis of chronologically clustered groups of trackways, Baillie (1999, 38) has suggested that wetland sites were built during drier phases when the bogs were more accessible.

Palaeoenvironmental analysis at Corlea stood apart from its predecessors in Ireland thanks to the multi-proxy

approach it adopted to the reconstruction of the local and wider setting of the tracks. These included a detailed study of bog stratigraphy (Casparie and Moloney 1996), pollen analyses (Caseldine and Hatton 1996; Caseldine *et al.* 1996a; 1996b), coleopteran analyses (Reilly 1996) and wood analysis (Moloney 1996), an approach that was later built upon during the Lisheen Archaeological Project (Gowen *et al.* 2005) and excavations at Edercloon (Moore 2008, 10–11) and Newrath (Carter 2007; Timpany 2008). These studies demonstrated that trackways were constructed across a range of habitats on the bog surface, including wetter and drier areas, countering theories that the sites were simply a response to changing environmental conditions. In the case of the Corlea 1 track, it seems as if the very weight of the timbers led to compression of the underlying peat, and the surface of the trackway would have remained barely above the water-table (Casparie and Moloney 1996). Interestingly, the pollen records show that while some trackways were constructed during periods in which human impact on the dryland landscape was very noticeable, others, including Corlea 1, were built at times when farming evidence was limited (Caseldine *et al.* 1996a; 1996b; 2005).

Two bogs near the prominent landmark of Croghan Hill, Co. Offaly, have proven to be of particular interest in relation to the early Iron Age, given the recent discoveries of the Pallasboy wooden vessel from Toar Bog and the Oldcroghan Man bog body from Clonearl Bog (see above) and the palaeoenvironmental investigations associated with each (Fig. 5). Pollen studies from the find-spots have shed light on the character of past human activity in this area, indicating spatial and temporal variations in land use across the later prehistoric period. Both pollen records show very clear evidence for substantial land clearance by the late tenth century BC (Plunkett *et al.* 2009; Plunkett, unpublished data). From the mid-ninth century BC there was a decline in farming intensity at Oldcroghan, and at both sites there was a closing up of the landscape from the early sixth century BC. The period between approximately 600 and 300 cal. BC witnessed very limited human activity at either site, in common with many pollen diagrams from Ireland, including those from Corlea (Caseldine *et al.* 1996a; 1996b), Derryville (Caseldine *et al.* 2005) and Edercloon (Plunkett, in progress), and corresponding to the enigmatic late Bronze Age–Iron Age transition. Renewed clearance begins in the early third century BC at Oldcroghan around the time the body was deposited in the bog (Plunkett *et al.* 2009). This clearance is less intense than seen in the tenth century BC

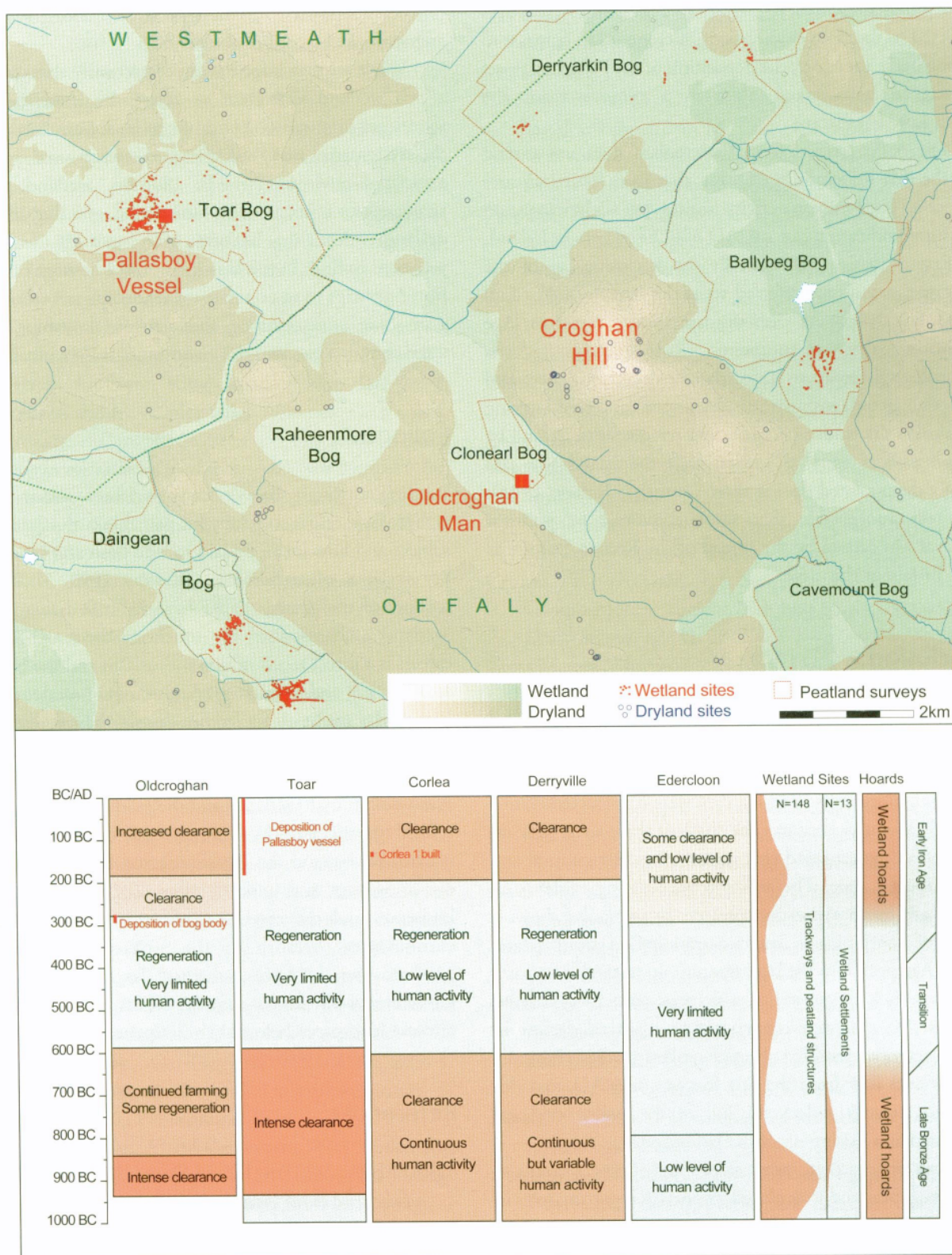


Fig. 5—Map showing the locations of the Pallasboy vessel from Toar Bog and the Oldcroghan Man bog body from Clonearl Bog, and a schematic diagram of the principal phases of human activity identified from these sites and from other wetland complexes at Corlea, Co. Longford (after Caseldine *et al.* 1996b), Derryville, Co. Tipperary (after Caseldine 2005), and Edercloon, Co. Longford (preliminary data: Plunkett, in progress).

and is not represented at Toar Bog, suggesting that it was restricted to the close environs of Oldcroghan. In contrast to the bog body, therefore, the deposition of the Pallasboy vessel appears to have taken place at a remove from the domesticated landscape.

The pollen record from Oldcroghan does not extend into the first millennium AD, but that from Toar indicates little or no local human activity until a very slight expansion of cultural indicators at *c.* cal. AD 300. Elsewhere in Ireland, the first centuries AD typically see a closing up of the landscape, commonly referred to as the Late Iron Age Lull (cf. Molloy 2005). As with the late Bronze Age–Iron Age transition, this phenomenon corresponds in the archaeological record to a dearth of cultural evidence, and the pollen records insinuate an absence of concerted farming pressure on the landscape. Sufficient references to Ireland by Roman writers exist to suggest that the island was not entirely depopulated during these centuries (Raftery 1994), and it is conceivable that some economic or political upheaval was caused by the spread of the Roman Empire as far as Britain at this time.

Conclusion

The picture that has emerged from Barry Raftery's work and from the other projects that followed shows a rich wetland heritage with a complex dynamic between archaeological sites and the environments in which they were constructed. While no single narrative captures the story of these sites, they do often reflect patterns and changes on a broader cultural and environmental scale. The archaeological dating evidence in general and from excavation projects in particular shows a degree of continuity in wetland exploitation from a later Bronze Age peak into the Iron Age and up to the last century BC. There is a suggestion of a decrease in activity around 400–300 BC that may correspond to a general decline in human activity identified through pollen studies. Typically very few sites date from the first five centuries AD, and this seems to strongly reflect the lull in the pollen evidence manifested as a closing up of the landscape.

It can be seen that, rather than simply being a means to cross a bog, peatland sites played important recurring roles in people's economic and belief systems, perhaps even at an aesthetic level. This is demonstrated through the considerable resources that communities invested in and took from the wetlands, and also through the wealth of

objects deposited, which feature strongly in the archaeological record of the period.

While we may hope that an opportunity arises to explore a rich wetland settlement or votive site from the period, significant information continues to be accumulated through the systematic study of more everyday sites and their associated environments. In addition, wetland sites are analogues for other aspects of the period, and they hint at the dryland evidence that has often been lost or that we have not yet learnt to find. In this way the wetland heritage of the Irish Iron Age helps us to populate the landscape as a whole and to gain some understanding about the relationships between these communities and the environments they inhabited.

Epilogue

Reading through Barry's early writings about wetland archaeology, one is struck by his palpable enthusiasm for the subject and how it can be said to 'add flesh and blood to the dry skeleton of archaeology' (Raftery 1990, 5). That the authors of the present paper have identified themselves as 'wetland archaeologists' for much of their archaeological careers is a direct result of this enthusiasm and the eloquence of a skilled and engaging educator. Few students would lament the missing of a lecture during their studies (active avoidance often being the norm), but Barry's addresses were always keenly anticipated and well attended. Through his own work in Irish wetlands and the guidance and support he offered to the authors, among many others, his impact reached far beyond the lecture theatre. His contribution to our knowledge and understanding of the Irish Iron Age is immense, and the revelation of the true abundance and chronological breadth of the archaeology of Ireland's peatlands would have remained largely unknown and uncelebrated but for his singular efforts to ensure the study of these landscapes before their disappearance.

References

- Aalen, F.H.A., Whelan, K. and Stout, M. (eds) 1997 *Atlas of the Irish rural landscape*. Cork University Press.
- Anon. 1999 A new structured approach to archaeology at Bord na Móna. *Scéal na Móna* 13 (24), 14–15.
- Baillie, M.G.L. 1999 *Exodus to Arthur*. London. Batsford.
- Bermingham, N. and Delaney, M. 2006 *The bog body from*

- Tumbeagh*. Bray. Wordwell.
- Bourke, L. 2001 *Crossing the Rubicon: Bronze Age metalwork from Irish rivers*. Bronze Age Studies 5. Department of Archaeology, NUI Galway.
- Brindley, A.L. and Lanting, J.N. 1998 Radiocarbon dates for Irish trackways. *Journal of Irish Archaeology* 9, 45–68.
- Buckley, L., Cross May, S., Gregory, N., Murray, C., Ó Néill, J., Roche, H. and Stevens, P. 2005 Catalogue of finds. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 311–28. Bray. Wordwell.
- Carter, S. 2007 Environmental archaeology: two examples from the N25 Waterford City Bypass and the N7 Limerick Southern Ring Road (Phase II). In J. O'Sullivan and M. Stanley (eds), *New routes to the past: proceedings of a public seminar on archaeological discoveries on national road schemes, August 2006*, 47–60. Archaeology and the National Roads Authority Monograph Series No. 4. Dublin. National Roads Authority.
- Caseldine, C. 2005 The palaeoenvironmental studies. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 79–82. Bray. Wordwell.
- Caseldine, C. and Hatton, J. 1996 Early land clearance and wooden trackway construction in the third and fourth millennia BC at Corlea, Co. Longford. *Proceedings of the Royal Irish Academy* 96B, 11–19.
- Caseldine, C., Hatton, J. and Caseldine, A. 1996a Palaeoecological studies at Corlea (1988–1992). In B. Raftery, *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*, 379–92. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Caseldine, C., Hatton, J., Huber, U., Chiverrell, R. and Woolley, N. 1996b Palaeoecological work at Corlea (1992–1995). In B. Raftery, *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*, 393–4. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Caseldine, C., Hatton, J. and Gearey, B. 2005 Pollen and palaeohydrological analyses. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project, 1996–8*, 83–136. Bray. Wordwell.
- Casparie, W. 1984 The three Bronze Age footpaths XVI (Bou), XVII (Bou) in the raised bog of southeast Drenthe (the Netherlands). *Palaeohistoria* 26, 41–94.
- Casparie, W. 1993 The Bourtanger Moor: endurance and vulnerability of a raised bog system. *Hydrobiologia* 265, 203–15.
- Casparie, W. 2005 Derryville Bog: peat morphology and bog development. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 13–54. Bray. Wordwell.
- Casparie, W.A. and Moloney, A. 1996 Corlea 1: palaeoenvironmental aspects of the trackway. In B. Raftery, *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*, 367–77. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Coles, B. and Coles, J. 1986 *Sweet Track to Glastonbury: the Somerset Levels in prehistory*. New York. Thames and Hudson.
- Corcoran, E. 2003 Investigation of the find spot of partial human remains in Ballivor Bog, County Meath. Unpublished report by Archaeological Development Services on behalf of Bord na Móna.
- Cronin, T., Downey, L., Synnott, C. *et al.* 2007 Composition of ancient Irish bog butter. *International Dairy Journal* 17 (9), 1011–20.
- Cross May, S., Murray, C., Ó Néill, J. and Stevens, P. 2005a Chronology. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 55–77. Bray. Wordwell.
- Cross May, S., Murray, C., Ó Néill, J. and Stevens, P. 2005b Catalogue of dryland sites. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 283–310. Bray. Wordwell.
- Cross May, S., Murray, C., Ó Néill, J. and Stevens, P. 2005c Landscape context. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 351–62. Bray. Wordwell.
- Cross May, S., Murray, C., Ó Néill, J. and Stevens, P. 2005d Archaeological conclusions. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 363–6. Bray. Wordwell.
- Dixon, N. 2004 *The crannogs of Scotland: an underwater archaeology*. Stroud. Tempus.
- Downey, L., Synnott, C., Kelly, E.P. and Stanton, C. 2006 Bog butter: dating profile and location. *Archaeology Ireland* 20 (1), 32–4.
- Earwood, C. 1993 *Domestic wooden artefacts in Britain and Ireland from Neolithic to Viking times*. University of Exeter Press.

- Earwood, C. 1997 Bog-butter: a two-thousand-year history. *Journal of Irish Archaeology* 8, 25–42.
- Feehan, J. and O'Donovan, G. 1996 *The bogs of Ireland: an introduction to the natural, cultural and industrial heritage of Irish peatlands*. The Environmental Institute, University College Dublin.
- Fox, C. 1946 *A find of the Early Iron Age from Llyn Cerrig Bach, Anglesey. Final report*. Cardiff. National Museum of Wales.
- Fredengren, C. 2000 Iron Age crannogs in Lough Gara. *Archaeology Ireland* 14 (2), 26–8.
- Fredengren, C. 2002 *Crannogs: a study of people's interaction with lakes, with particular reference to Lough Gara in the north-west of Ireland*. Bray. Wordwell.
- Godwin, H. 1960 Prehistoric wooden trackways of the Somerset Levels: their construction, age and relation to climatic change. *Proceedings of the Prehistoric Society* 26, 1–36.
- Gowen, M., Phillips, M. and Ó Néill, J. (eds) 2005 *The Lisheen Mine Archaeological Project 1996–8*. Bray. Wordwell.
- Hammond, R.F. 1979 *The peatlands of Ireland*. Soil and Survey Bulletin No. 35. Dublin. An Foras Taluntais.
- IAWU 1993a *Survey of the raised bogs of County Longford*. Irish Archaeological Wetland Unit Transactions 1. Dublin. Crannóg Publications.
- IAWU 1993b *Excavations at Clonfinlough, County Offaly*. Irish Archaeological Wetland Unit Transactions 2. Dublin. Crannóg Publications.
- IAWU 1995 *Blackwater survey and excavations. Artefact deterioration in peatlands, Lough More, Co. Mayo*. Irish Archaeological Wetland Unit Transactions 4. Dublin. Crannóg Publications.
- IAWU 1996 Final report on the archaeological assessment of part of Derryville Bog 1995. Unpublished report commissioned by Minorco Lisheen Ltd.
- IAWU 1997 Surveys of Lemanaghan and Bellair Works, Co. Offaly, 1993, 1994 and 1996. In I. Bennett (ed.), *Excavations 1996: summary accounts of archaeological excavations in Ireland*, 121–3. Bray. Wordwell.
- IAWU 1998 Irish Archaeological Wetland Unit fieldwork 1997—counties Offaly, Westmeath and Mayo. In I. Bennett (ed.), *Excavations 1997: summary accounts of archaeological excavations in Ireland*, 207–8. Bray. Wordwell.
- IAWU 2000a Irish Archaeological Wetland Unit fieldwork 1998—counties Offaly and Mayo. In I. Bennett (ed.), *Excavations 1998: summary accounts of archaeological excavations in Ireland*, 226–7. Bray. Wordwell.
- IAWU 2000b Draft catalogue of archaeological sites in Toar Bog, Co. Westmeath. Unpublished report commissioned by *Dúchas* The Heritage Service.
- IAWU 2002 Irish Archaeological Wetland Unit (IAWU) fieldwork 2000, counties Westmeath and Offaly. In I. Bennett (ed.), *Excavations 2000: summary accounts of archaeological excavations in Ireland*, 369. Bray. Wordwell.
- IAWU 2003 Peatland Survey 2002 Archaeological Survey Report: Ballycon, Derrycricket and Mountlucas Bogs, Co. Offaly. Unpublished report commissioned by *Dúchas* The Heritage Service.
- Jackson, J. 1991 The geology and raw materials of the Iron Age. In M. Ryan (ed.), *The illustrated archaeology of Ireland*, 106–7. Dublin. Country House.
- Kelly, E.P. 2006 Secrets of the bog bodies: the enigma of the Iron Age explained. *Archaeology Ireland* 20 (1), 26–30.
- Lucas, A.T. 1985 Toghers or causeways: some evidence from archaeological, historical and place-name sources. *Proceedings of the Royal Irish Academy* 85C, 37–60.
- McDermott, C. 2001 Trekkers through time: recent archaeological survey results from Co. Offaly, Ireland. In B. Raftery and J. Hickey (eds), *Recent developments in wetland research*, 13–26. Dublin. UCD and WARP.
- McDermott, C. 2007 'Plain and bog, bog and wood, Wood and bog, bog and plain!': Peatland archaeology in Ireland. In C. Green (comp.), *Archaeology from the wetlands: recent perspectives*, 17–30. Proceedings of the 11th WARP Conference, Edinburgh 2005. Edinburgh. Society of Antiquaries of Scotland.
- McDermott, C., Moore, C., Murray, C. and Stanley, M. 2003 Bog Standard? *Archaeology Ireland* 17 (4), 20–3.
- McDermott, C., Murray, C., Plunkett, G. and Stanley, M. 2002 Of bogs, boats and bows: Irish Archaeological Wetland Unit Survey 2001. *Archaeology Ireland* 16 (1), 28–31.
- Macdonald, P. 2007 *Llyn Cerrig Bach: a study of the copper alloy artefacts from the Insular La Tène assemblage*. Cardiff. Gwasg Prifysgol Cymru/University of Wales Press.
- Minnitt, S. and Coles, J. 1996 *The lake villages of Somerset*. Taunton. Glastonbury Antiquarian Society/Somerset Levels Project/Somerset County Council Museums Service.
- Mitchell, G.F. 1956 Post-Boreal pollen-diagrams from Irish

- raised bogs. (Studies in Irish Quaternary Deposits: No. 11.) *Proceedings of the Royal Irish Academy* 57B, 185–251.
- Molloy, K. 2005 Holocene vegetation and land-use history at Mooghaun, south-east Clare, with particular reference to the Bronze Age. In E. Grogan, *The North Munster Project, Vol. 1: the later prehistoric landscape of south-east Clare*, 255–87. Discovery Programme Monograph No. 6. Bray. Wordwell.
- Moloney, A. 1996 Wood analysis. In B. Raftery, *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*, 343–57. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Moore, C. 2008 Old routes to new research: the Edercloon wetland excavations in Co. Longford. In J. O'Sullivan and M. Stanley (eds), *Roads, rediscovery and research*, 1–12. Archaeology and the National Roads Authority Monograph Series No. 5. Dublin. National Roads Authority.
- Moore, C. and McDermott, C. 2003 Report on the examination of the findspot of a bog body (NMI 2003:14) from Clonearl Demesne, Co. Offaly. Unpublished report by the Irish Archaeological Wetland Unit on behalf of the National Museum of Ireland.
- Moore, C., Murray, C., Stanley, M. and McDermott, C. 2003 Bogland survey in Ireland: forty shades of brown. In J. Fenwick (ed.), *Lost and found: discovering Ireland's past*, 123–38. Bray. Wordwell.
- Murray, C. 2000 A wooden vessel from Co. Westmeath, Ireland. *NewsWARP* 28, 7–8.
- Murray, C. 2002 Pallasboy. In I. Bennett (ed.), *Excavations 2000: summary accounts of archaeological excavations in Ireland*, 349. Bray. Wordwell.
- Murray, C., Stanley, M., McDermott, C. and Moore, C. 2002 Sticks and stones: Wetland Unit survey 2002. *Archaeology Ireland* 16 (4), 16–19.
- O Carroll, E. 1997 Lemanaghan. In I. Bennett (ed.), *Excavations 1996: summary accounts of archaeological excavations in Ireland*, 93–4. Bray. Wordwell.
- O Carroll, E. 2001 *The archaeology of Lemanaghan—the story of an Irish bog*. Bray. Wordwell.
- O Carroll, E. and Whitaker, J. 1999 A trek through the bogs. *Archaeology Ireland* 13 (3), 32–3.
- Ó Floinn, R. 1988 Irish bog bodies. *Archaeology Ireland* 2 (3), 94–7.
- Ó Floinn, R. 1995a Recent research into Irish bog bodies. In R. C. Turner and R. G. Scaife (eds), *Bog bodies: new discoveries and new perspectives*, 137–45. London. British Museum Press.
- Ó Floinn, R. 1995b Gazetteer of bog bodies in the British Isles 2: Ireland. In R. C. Turner and R. G. Scaife (eds), *Bog bodies: new discoveries and new perspectives*, 221–34. London. British Museum Press.
- Ó Néill, J. 2005 Worked wood. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 329–40. Bray. Wordwell.
- O'Sullivan, A. 1998 *The archaeology of lake settlement in Ireland*. Discovery Programme Monographs 4. Dublin. Royal Irish Academy.
- O'Sullivan, A. 2001 *Foragers, farmers and fishers in a coastal landscape: an intertidal archaeological survey of the Shannon estuary*. Discovery Programme Monographs 5. Dublin. Royal Irish Academy.
- O'Sullivan, A. 2007 Exploring past people's interactions with wetland environments in Ireland. *Proceedings of the Royal Irish Academy* 107C, 147–203.
- O'Sullivan, A. and Van der Noort, R. 2007 Temporality, cultural biography and seasonality: rethinking time in wetland archaeology. In C. Green (comp.), *Archaeology from the wetlands: recent perspectives*, 67–77. Proceedings of the 11th WARP Conference, Edinburgh 2005. Edinburgh. Society of Antiquaries of Scotland.
- Parkes, H. and Bradshaw, R. 1988 Bloomhill pollen analysis. In T. C. Breen, 'Excavation of a roadway at Bloomhill Bog, County Offaly'. *Proceedings of the Royal Irish Academy* 88C, 321–39, at pp 335–9.
- Plunkett, G. and McDermott, C. 2007 Exploring the role of environment in wetland archaeological contexts. In E. M. Murphy and N. J. Whitehouse (eds), *Environmental archaeology in Ireland*, 227–95. Oxford. Oxbow.
- Plunkett, G., McDermott, C., Swindles, G.T. and Brown, D.M. (in prep.) Environmental indifference? A critical assessment of peatland archaeology and past climate change in Ireland.
- Plunkett, G., Whitehouse, N.J., Hall, V.A., Charman, D., Blaauw, M., Kelly, E. and Mulhall, I. 2009 A multi-proxy palaeoenvironmental investigation of the findspot of an Iron Age bog body from Oldcroghan, Co. Offaly, Ireland. *Journal of Archaeological Science* 36, 265–77.
- Raftery, B. 1990 *Trackways through time: archaeological investigations on Irish bog roads, 1985–1989*. Rush. Headline Publishing.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish*

- Iron Age*. London. Thames and Hudson.
- Raftery, B. 1996 *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Raftery, B. 1999 The milling fields. In B. Coles, J. Coles and M. Schou Jorgensen (eds), *Bog bodies, sacred sites and wetland archaeology*, 191–201. WARP Occasional Paper 12. Exeter. Wetland Archaeology Research Project.
- Reilly, E. 1996 The insect fauna (Coleoptera) from the Neolithic trackways Corlea 9 and 10: the environmental implications. In B. Raftery, *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*, 403–9. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Reilly, E. 2005 Coleoptera. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 187–208. Bray. Wordwell.
- Rieck, F. 1999 The Nydam sacred site, Denmark. In B. Coles, J. Coles and M. Schou Jørgensen (eds), *Bog bodies, sacred sites and wetland archaeology*, 209–16. WARP Occasional Paper 12. Exeter. WARP.
- Rynne, E. 1961–3 The Danes' Road, a togher near Monasterevin. *Journal of the Kildare Archaeological Society* 13, 449–57.
- Rynne, E. 1964–5 A togher and a bog road in Lullymore Bog. *Journal of the Kildare Archaeological Society* 14, 34–40.
- Rynne, E. 1965 Toghers in Littleton Bog, Co. Tipperary. *North Munster Antiquarian Journal* 9, 138–44.
- Stanley, M. 2000 An Irish Star Carr? *Archaeology Ireland* 14 (4), 30–2.
- Stanley, M. 2003 Archaeological survey of Irish bogs: information without understanding? *Journal of Wetland Archaeology* 3, 61–74.
- Stanley, M. 2007 Anthropomorphic wooden figures: recent Irish discoveries. In C. Green (comp.), *Archaeology from the wetlands: recent perspectives*, 183–90. Proceedings of the 11th WARP Conference, Edinburgh 2005. Edinburgh. Society of Antiquaries of Scotland.
- Stanley, M. and Moore, M. 2004 Medieval peatland dwellings. *Archaeology Ireland* 18 (4), 12–14.
- Stanley, M., McDermott, C., Moore, C. and Murray, C. 2003 Throwing off the yoke. *Archaeology Ireland* 17 (2), 6–8.
- Stuijts, I. 2005 Wood and charcoal identification. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 137–86. Bray. Wordwell.
- Synnott, C. and Downey, L. 2004 Bog butter—its historical context and chemical composition. *Archaeology Ireland* 18 (2), 30–5.
- Taylor, K. 2008 At home and on the road: two Iron Age sites in County Tipperary. *Seanda* 3, 54–5.
- Timpany, S. 2008 The palaeoenvironmental potential of waterlogged deposits and their contribution to archaeological investigations. In J. O'Sullivan and M. Stanley (eds), *Roads, rediscovery and research*, 13–23. Archaeology and the National Roads Authority Monograph Series No. 5. Dublin. National Roads Authority.
- Tohall, P., de Vries, H.L. and van Zeist, W. 1955 A trackway in Corlona Bog, Co. Leitrim. *Journal of the Royal Society of Antiquaries of Ireland* 85, 77–83.
- Turner, R.C. and Briggs, C.S. 1986 The bog burials of Britain and Ireland. In I. M. Stead, J. B. Bourke and D. Brothwell (eds), *Lindow Man: the body in the bog*, 144–61. New York. Cornell University Press.
- Turrell, S. and Whitaker, J. 2007 Unique early medieval 'bog crannog'. *Archaeology Ireland* 21 (3), 4.
- Van der Noort, R. and O'Sullivan, A. 2006 *Rethinking wetland archaeology*. London. Duckworth.
- van der Sanden, W. 1996 *Through nature to eternity: the bog bodies of northwest Europe*. Amsterdam. Bavarian Lion International.
- van Zeist, W. 1955 A palynological study of Corlona Bog. In P. Tohall, H. L. de Vries and W. van Zeist, 'A trackway in Corlona Bog, Co. Leitrim'. *Journal of the Royal Society of Antiquaries of Ireland* 85, 77–83, at pp 80–3.
- Whitaker, J. 1998 Sharragh. In I. Bennett (ed.), *Excavations 1997: summary accounts of archaeological excavations in Ireland*, 179–80. Bray. Wordwell.
- Wilkins, B. 2007 Time and tide: five millennia of environmental change and human activity on the banks of the Suir. In J. O'Sullivan and M. Stanley (eds), *New routes to the past: proceedings of a public seminar on archaeological discoveries on national road schemes, August 2006*, 61–71. Archaeology and the National Roads Authority Monograph Series No. 4. Dublin. National Roads Authority.
- Wood-Martin, W.G. 1902 *Traces of the elder faiths of Ireland, a folklore sketch: a handbook of Irish pre-Christian traditions*. London. Longmans Green and Co.



CORLEA 1991: BARRY DOES A PIECE TO CAMERA
LEAVING THE 'REAL' EXPERTS TO GET ON WITH THE WORK

Memories of the excavations in 1991 in advance of the construction of the Corlea Visitors Centre (Conor McHale 2009).

Exploitation of plants and animals at the Jomon wetland site of Sakuramachi in Toyama, Japan

Akira Matsui

Introduction

The discovery of many wooden remains, including structural fragments, at the Sakuramachi site in Oyabe City, Toyama Prefecture, was one of the biggest nation-wide archaeological news items in 1997. Many wooden architectural structures and implements were found in a riverside activity area, including storage pits and much woodworking material. The site was excavated in 1987–90 and 1996–2000 during a rescue archaeology programme prior to the widening of the National Road No. 8 (Fig. 1). During these excavations, a great number of planks and wooden implements were unearthed, some of which were among the oldest such pieces found in Japan. The site was located within a narrow valley and was subject to occasional landslides during the Jomon period, especially at the end of the Middle Jomon around *c.* 4000 cal. BP and during the late episodes of the Final Jomon around *c.* 3000 cal. BP. Wide areas were buried by thick layers of soil caused by landslides and underground water running on the former ground surfaces. The ancient activity areas, including wooden structures and plant remains, were preserved in good condition.

I took part in this project as an advisory board member from 1998 and was engaged to discuss and advise on excavation techniques and analytical work concerning environmental archaeology, especially sieving procedures and the identification of faunal remains.

As a tribute of respect and affection to Professor Barry Raftery, I would like to introduce some of the excavation results of this rare wetland site and my analysis of the faunal remains.

The excavation of the Sakuramachi site

The Sakuramachi site is located in an upriver area of the Konade River, a tributary of the Oyabe River flowing into the Toyama Gulf; the distance between the site and the coast along the Oyabe River mouth is approximately 20km (Fig. 2). The site is on an alluvial fan 30–50m above sea level, spreads eastwards, and is surrounded on three sides by hills approximately 100m high.

The surrounding hills have soft soils based on marine sandstone and mudstone, and there are U-shaped landslide traces in places. The site has been exposed to erosion and deposition many times, at least twice by landslides and avalanches of sand and stone at the end of the Middle Jomon and the Final Jomon, as well as during later periods. Despite having been eroded and partially removed by fierce flooding from time to time, the site richly preserves the organic remains that dry sites do not, including building components, wooden tools, baskets and lacquer ware in good condition. Floods covered the wooden remains on the occupation surfaces, dated to between the end of the Middle Jomon and the beginning of the Late Jomon period, and between the end of the Late Jomon and the beginning of the Final Jomon period. In particular, the plant remains were constantly supplied with underground water that flowed on the former cultural surfaces in the sediments (Fig. 3).

The most valuable discoveries are various architectural materials that were parts of buildings, such as beams, posts, parts of the working facilities of the Jomon period, and portions of thatched roof (Kofun period, fifth century AD). There are also many wooden implements, including composite hafts of stone axes, bows, digging sticks, lacquered Urushi ware, vessels, fragments of baskets, ropes and many tools of unknown function (Oyabe City Board of Education 2004). Among the many important discoveries, I will concentrate in this paper on the discussion of the activities of nut-processing, fishing and hunting on the riverside during the Final Jomon period.

Features on the riverbank during the Middle Jomon (Oyabe City Board of Education 2004)

A large number of potsherds were recovered, dating from various phases from the Early to Final Jomon and to Yayoi and later times, but the majority are of the late Middle or early Late Jomon and the Final Jomon. The wooden structural materials, in particular, were found in layers dated to the end of the Middle Jomon, showing that they were



Fig. 1—Aerial photo of the Sakuramachi site.

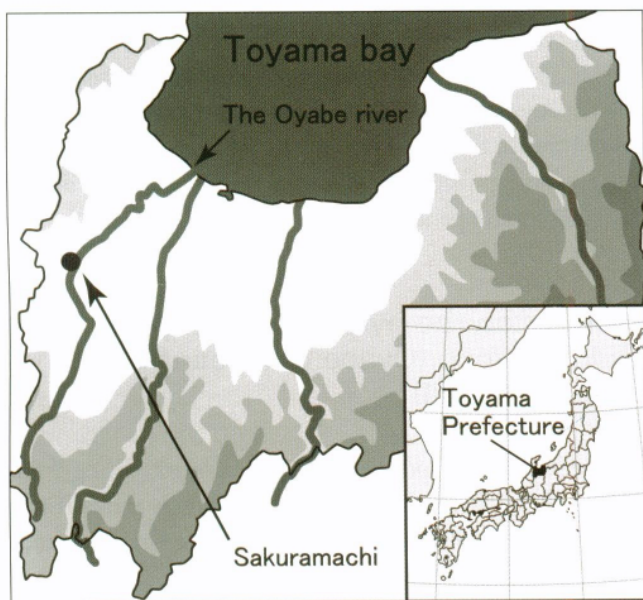


Fig. 2—Location of the Sakuramachi site.

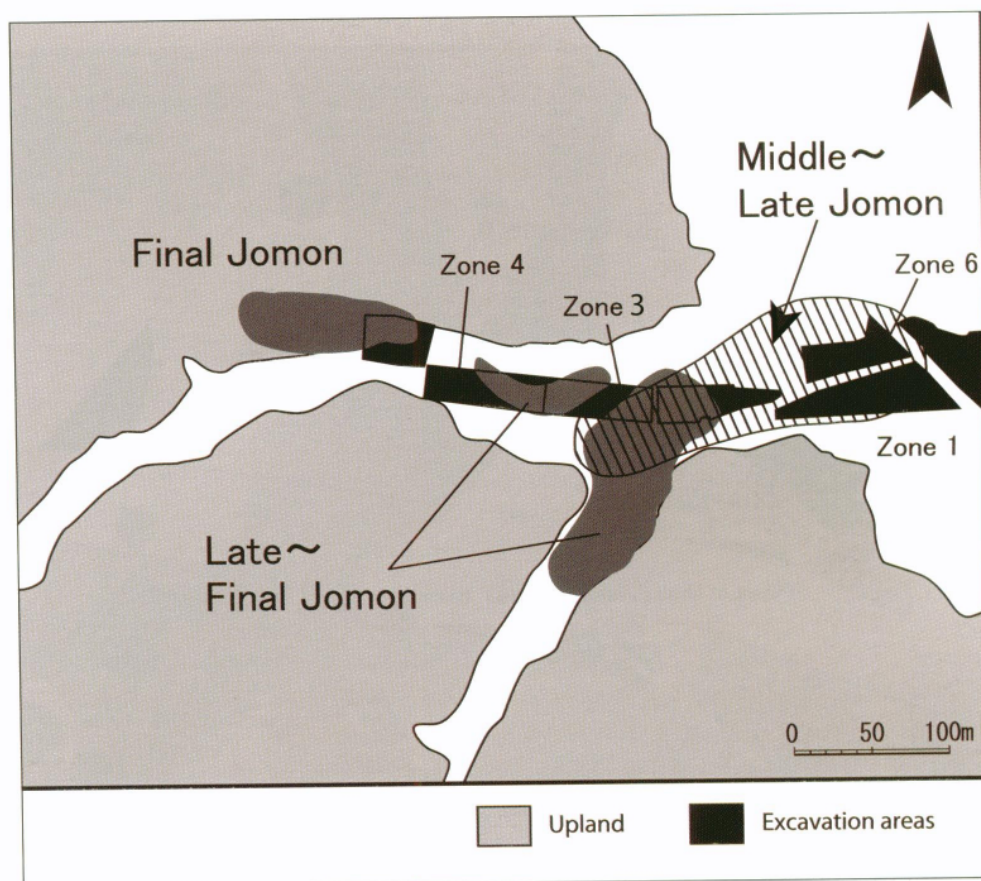
buried at the beginning of the Late Jomon period.

The principal area of the Middle Jomon occupation is centred on the river and surrounding features of the excavation zone 1 and zone 6 (Figs 3–4). The features relate to the water-usage facilities, with many building and other structural parts, as well as tools such as bows, hafts of stone axes, various baskets, ropes and combs painted with red Urushi lacquer, and so on. There were three chestnut posts measuring 1m in diameter *in situ*, and more than ten clustered fireplaces consisting of stones and burnt soils showed a concentration of dwellings, sometimes superimposed. Along with the dwellings, there were several storage pits, 1–1.5m in diameter, containing mostly walnut shells.

In the wetland area at the river edge, there were three timbers arranged and staked by pegs 15cm in diameter to form wooden steps or stairs, as well as five wooden structures, including two for water-usage facilities, one platform-like structure along the bank, and two extended wooden platforms to the stream. The water-usage facilities consisted of large timbers that form U or rectangular shapes to store river water. This kind of wooden frame has been excavated in several Jomon settlements and is called *mizuba* (water-usage facility area). Situated on the stream's edge, their function is to retain water to wash and leach foods. There are many possible things to be washed—nuts, vegetables, skins, leather, meat, tools and so on. The most likely items to be washed were acorns and other nuts to be processed. The acorns and other nuts had to be ground to a fine powder and then boiled—and sometimes not only boiled but also leached in order to remove any harsh taste, as most acorns of the deciduous forest typical in eastern Japan contain some harsh taste of tannin acid. But the nuts most elaborately to be boiled were horse chestnuts. According to the ethnographic records, they were ground to a fine powder and then boiled with ash to remove the stronger harsh tastes of saponin.¹

Radiocarbon dating of the water-retaining timbers produced dates of 4050 ± 50 to 3930 ± 40 cal. BP (Oyabe City Board of Education 2004, 73–4). A platform-like structure, 11m in length with a horizontal upper surface, was made from a pile of timbers and planks. Many of the materials used were originally from building parts, such as beams, crossbeams, girders, posts, planks for walls and curved posts, providing insight into the building techniques in the Jomon culture. The architectural posts are split up into two types: some measure 3m in length and 20cm in diameter and have

Fig. 3—Extent of the excavation area.



a mortise measuring 20cm in length and 18cm in width, while others are smaller in size and have four holes to accommodate crossbeams. From these posts it can be inferred that some of the structures were rather complex.

Around each structure, numerous horse chestnuts and chestnut shells were found, probably the remains of processing to remove worms and bitterness through grinding into powder. Concentrations of wooden structures and heaped-up shells of horse chestnuts and chestnuts were carefully excavated from the westernmost area. The horse chestnut stumps and their roots were also found *in situ* at the southern riverbank of zone 1, dated to 4080 ± 50 cal. BP, showing that the collection, storage and bitterness-removing process were all done within this settlement (1). Jomon people might have planted and harvested the useful trees, like horse chestnut, chestnut and walnut, within their settlement or nearby.

The Jomon people probably maintained the useful trees like chestnuts (*Castanea* sp.), horse chestnuts (*Aesculus* sp.), walnuts (*Juglans* sp.) and oaks (*Quercus* sp.), and cut the less

important trees for structural work first; only the useful trees were maintained and harvested for many years. Finally they were cut for use as fuel, posts and other architectural materials. As they matured, these useful trees were continually replaced by younger ones. This conclusion is reinforced by the high proportion of chestnut charcoal at the Shimoyakebe sites in Tokyo (Sasaki and Noshiro 2004). Such a high ratio of chestnut trees in the surrounding forests would not have existed naturally, and human management must have been responsible for this effect in the Middle Jomon period.

Features on the riverbank during the Final Jomon (Oyabe City Board of Education 2005)

At the western side of the valley, in zones 3 and 4, various features belonging to the Final Jomon were found in good condition. These were water-usage facilities and nut storage

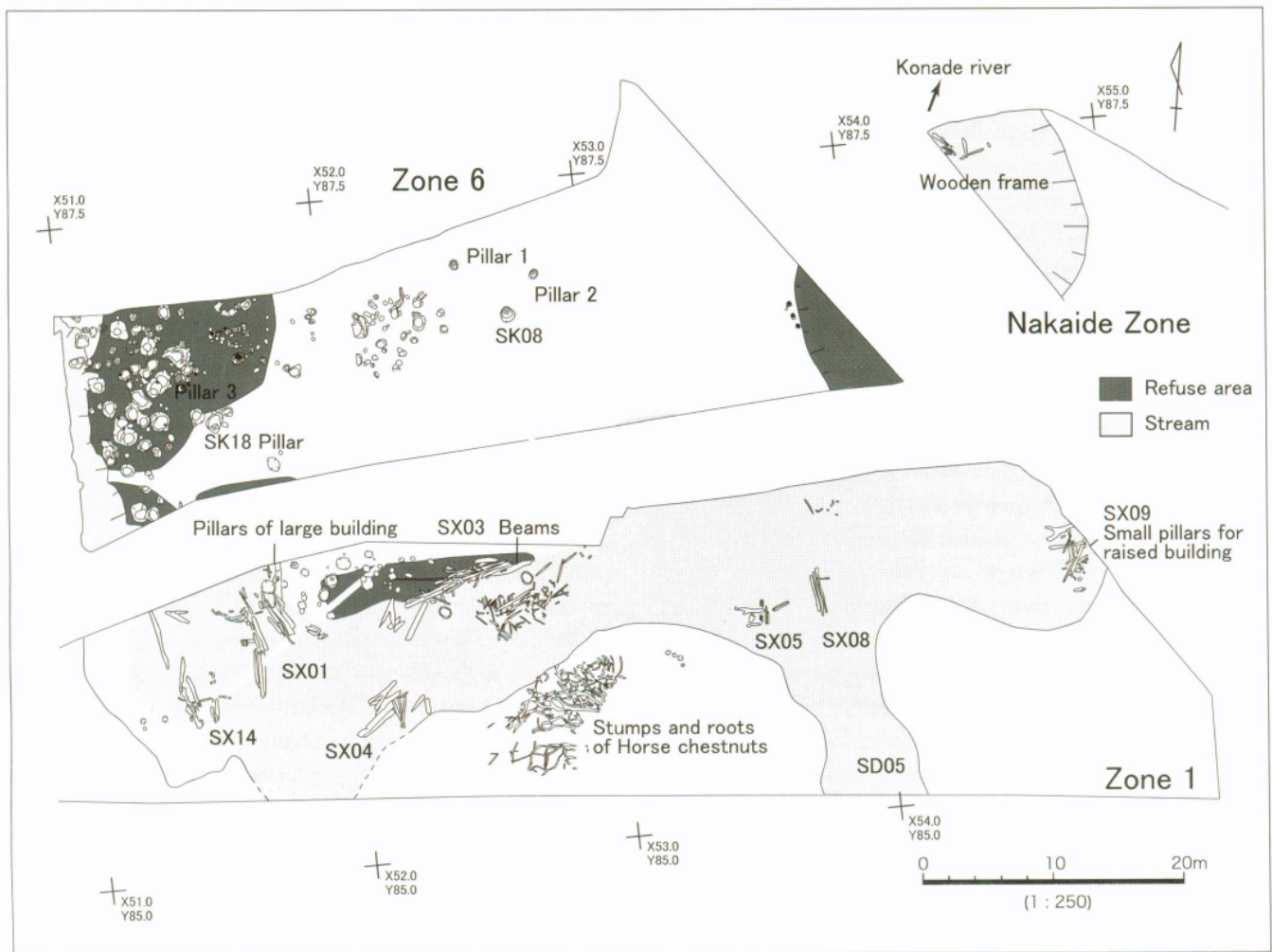


Fig. 4—Plan of zones 1 and 6.

pits similar to those of the Middle Jomon period. The stream, SD196, measuring approximately 25m wide and 1.5m deep and running eastward, changes its direction northwards in the middle of the excavated area, zone 3 (Fig. 5).

Water-usage facility feature SX02 (Fig. 6) was a rectangular wooden frame, 1.5m by 0.8m, constructed of 7cm-thick planks on the western bank of the stream, SD196. All the planks were piled and fixed by pegs on their corners, like those of the Middle Jomon period. The number of water-usage facilities belonging to the Final Jomon period is quite large because the excavations, which had previously been limited to a dwelling area, were extended to the peripheral area of the Jomon settlement.

Storage pit, feature SK249

I will discuss one typical storage pit, feature SK249 (Fig. 7). This is a Final Jomon storage pit for nuts, and consists of superimposed upper and lower storage parts. It was dug at the western bank of the stream SD243, which is the later stream of feature SD196.

The feature is oval in plan and measures 1.34m by 1.2m. The upper pit has a square wooden frame consisting of three sets of rough planks and measures 0.7m by 0.7m and 0.4m in depth. This pit was covered by bark made of Japanese zelkova (*Zelkova serrata*) covering an area of 1m by 0.6m, large enough to cover the pit. The planks of this wooden frame are mostly made of chestnut, with only two

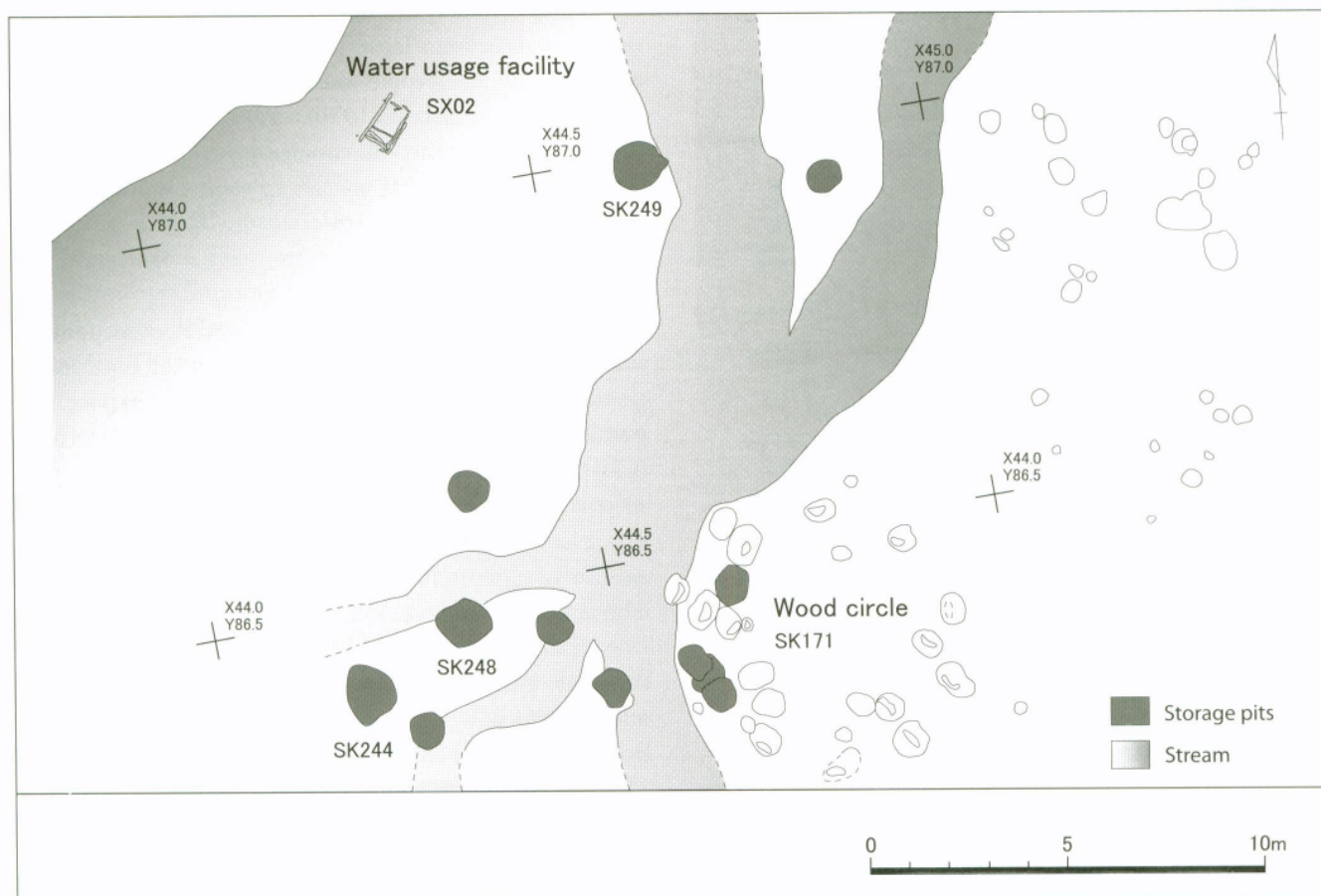


Fig. 5—Plan of zone 3.

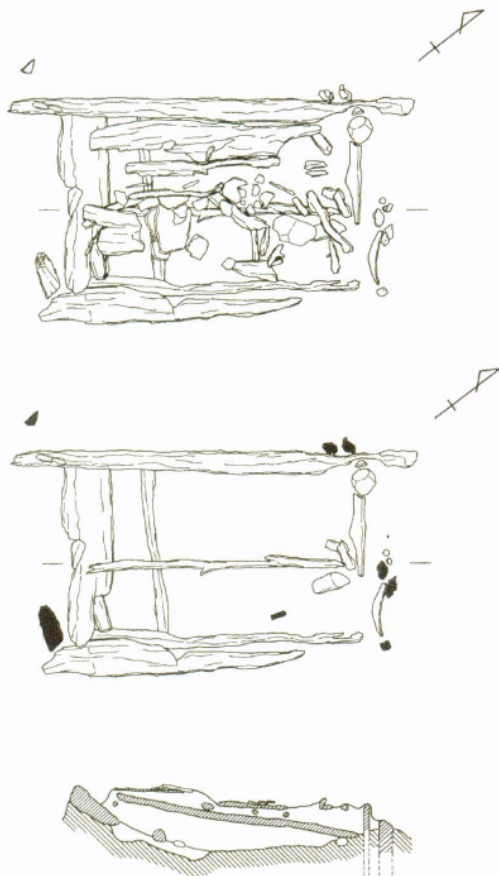
pieces of horse chestnut and two pieces of Yamaguwa (*Morus bombycis*).

The upper pit contained more than 1,000 acorns, mostly of an evergreen Akagashi oak (Subgen. *Cyclobalanopsis*) that does not need special treatment and a small number from Konara oak (Subgen. *Quercus*), a deciduous species of acorn that needs to be ground into flour and boiled in order to remove its harsh taste.

The lower pit is 97cm deep from the rim of the upper pit. It contained approximately 2,000 acorns, mostly from Konara oak. This is not because of any changes in the environment. An acorn from the upper pit produced a radiocarbon date of 2980 ± 40 cal. BP, and one from the lower pit yielded a date of 2950 ± 40 cal. BP, although the median dates are reversed. As there is no considerable hiatus in their dating, it seems that the evergreen Akagashi oak and deciduous Konara oak were growing together in this area but their acorns were stored separately. There were also a small

number of walnuts, chestnuts and horse chestnuts, although probably unintentionally included. Of these, chestnut and walnut would have been preferred because they were more nutritious and tasty, although they could not be harvested in sufficient numbers.

There are many contemporaneous storage pits along the bank nearby. They appear to have been filled with underground water when they were dug. In general, the storage pits of eastern Japan are mostly located on the terraces in dry conditions. In contrast, those of western Japan are located along the river or coastal waterside in wet conditions. The reason why Jomon people dug their storage pits in such different conditions in the east and west is not clear. Some archaeologists have hypothesised that the wet storage pits could have removed the harsh taste of the acorns stored in them, but there is no proof of this. Some believe that the wet storage pits kept bugs away from the acorns. The acorns in western Japan are mostly from evergreen



SX02

0 1m
(1:15)

Fig. 6—Photo and plan of the water-usage facility SX02.

broad-leaved forests and do not have a harsh taste, whereas the acorns in eastern Japan (except northern Hokkaido) are deciduous, which people had to process to remove their harsh taste (Watanabe 1970). So there is no decisive explanation as to why the storage pits of the eastern and western Jomon were dug in such different conditions.

Wood circles

There were at least two wood circles, A and B, overlapping on the east side of the stream, SD243, during the Final Jomon period. Circle A, 6.2m in diameter, consists of ten posts. The post-holes are oval and measure on average 0.78–1.1m by 0.54–0.76m by 0.29–0.61m deep. Remains of the posts survive in eight of the post-holes. These posts were either cut into a half-moon shape in section or are plank-like. Circle B consists of eight posts, of a similar size to those of circle A. The remains of posts survive in four of the post-holes.

All surviving remains of the posts are of chestnut; one of the posts of circle A has been dated to 2830 ± 40 cal. BP, and one from circle B to 2810 ± 40 cal. BP. These posts were cut from large and old chestnut trees.

Such wood circles have been found in particular in Ishikawa and Toyama prefectures during the Final Jomon period. They range from 5m to 10m in diameter, with posts measuring 0.4–1m, although made of large split timbers of mostly chestnut trees. Although some archaeologists consider these circles to be the foundations of round buildings, others believe that they are upstanding monuments. Such structures have been found on large numbers of sites, and they are probably ceremonial centres within the contemporary settlements in the regions.

Refuse area

A refuse area is spread on the east bank of the stream, SD196. The potsherds from this area date mostly from the end of the late Jomon to the end of the Final Jomon, although potsherds are not always stratigraphically accumulated but rather mixed randomly because the continuous floods caused erosion and re-sedimentation of the artefacts. There are also ceremonial goods, such as a red lacquered composite comb, cylindrical earrings, hanging ornaments including jade beads, clay figurines, phallic stones, stone daggers and so on. The numerous unfinished worked rhyolite flakes indicate that the locally characteristic ceremonial daggers made of this stone were manufactured at this site.

Faunal remains

Faunal remains in Japan have been found and reported from shell middens and limestone caves. Conditions on most of the dryland sites are poor, and preservation is bad. The bulk of the sediments at the refuse areas of Sakuramachi, which contained many potsherds and other artefacts, were sieved through 3mm and 1mm meshes, then sorted by hand and identified under the microscope (Hirofuji and Matsui 2007). As a result, a large number of small bones were recovered from these sediments. The total number of bones reached 21,169; the vast majority were burnt and broken into small pieces. Only 396 pieces, approximately 2% of the total, were identifiable in terms of their taxonomic orders and elements: 124 cartilaginous and teleostean fish, 125 amphibians, 27 reptiles, 11 birds and 109 mammals (Tables 1 and 2).

Faunal remains are mainly found in two refuse areas, zones 1 and 3; one dates from the end of the Middle Jomon or the beginning of the Late Jomon (zone 1), and the other from the Final Jomon period (zone 3). There are also small numbers of remains from zone 6. Out of 2,092 specimens from zone 1 only 123 were identified, and only 267 out of 18,776 specimens from zone 3. These refuse areas were buried by sudden landslides on at least two occasions, at the beginning of the Late Jomon about 4000 cal. BP and in the Final Jomon at about 3000 cal. BP. These landslides sealed the living floors, protecting them from oxygen and weathering. This explains why the wooden remains were preserved in good condition but not why the faunal remains were also preserved in good condition. In most cases, most of these tiny fragments were burnt and mineralised, and thereby protected from bacteria and other biotic decomposition in the acid soil.

The most common fish remains are of salmon (*Oncorhynchus* sp.); 32 broken pieces of cancellous vertebrae and eleven stray pointed teeth were identified at zone 1 (among 2,108 specimens), and eleven broken pieces of vertebrae and one tooth were identified at zone 3 (among 18,776 specimens). The size range of the original vertebrae indicates that they came from large anadromous *Oncorhynchus* sp. rather than from small landlocked fish. Anadromous *Oncorhynchus* sp. distributed close to Japan include humpback salmon (*Oncorhynchus tshawytscha*), Chinook salmon or king salmon (*Oncorhynchus gorbuscha*), dog salmon (*Oncorhynchus keta*) and cherry salmon (*Oncorhynchus masou*). Since the Sakuramachi site is located in the southernmost part of the Northern Pacific

Table 1—List of fauna identified at the Sakuramachi site.

Vertebrata (common name)

Chondrichthyes (cartilaginous fishes)

- Carcharodon carcharias* (great white shark)
- Lamniformes fam., gen. et sp. indet. (other shark species)
- Rajiformes fam., gen. et sp. indet. (ray or skate species)

Osteichthyes (bony fish)

- Cyprinidae gen. et sp. indet. (carp)
- Oncorhynchus* sp. indet. (salmon)
- Lateolabrax japonicus* (sea bass)
- Sparidae gen. et sp. indet. (sea bream/porgy)

Amphibia

- Salientia fam. et gen. indet. (frog/toad)

Reptilia

- Serpentes fam. et gen. indet. (snake)

Aves

- Aves order, fam., gen. et sp. indet. (species indeterminate)

Mammalia

- Leporidae gen. et sp. indet. (rabbit/hare)
- Petaurista leucogenys* (giant flying squirrel)
- Mustela itatsi* (weasel)
- Cervus nippon temminck* (sika deer)
- Sus scrofa leucomystax* (wild boar)

distribution region of the anadromous *Oncorhynchus* sp., and only the cherry salmon and the dog salmon are mostly seen in this peripheral region in modern times, it is highly possible that these fragmentary remains are of one or other of those two species.

The next most common fish remains are of the carp family (Cyprinidae). Atlas, second ribs and other elements have been identified. These bones are of 10–30cm-long cyprinids such as *Carassius* spp, *Zacco platypus* or *Tribolodon hakonensis*. No pharyngeal bone or pharyngeal teeth that would be the most vital clues for species identification were found. The atlas of the Cyprinidae is uniquely shaped as a cylinder with less depth and usefulness for identification.

The rest of the fish bones are those of saltwater fish, like ray or shark, sea bass (*Lateolabrax*) and sea bream (*Sparidae*). As they are sea fish, they indicate contact with coastal people.

Table 2—Identification of faunal remains (Hirofuji and Matsui 2007). L: left side; R: right side.

<i>Taxon</i>	<i>Common name</i>	<i>Zone 1 (Middle Jomon)</i>	<i>Zone 3 (Final Jomon)</i>	<i>Zone 6 (Middle Jomon)</i>
Cartilaginous fish	Ray/shark		2 vertebrae	
	Shark	1 tooth	1 tooth	
Teleost	Carp family	4 atlas, 2nd rib (L)	2 atlas, 2 2nd ribs (L,R) , 1 ang. (R)	
	<i>Oncorhynchus</i> sp. (salmon family)	1 tooth, 32 vertebrae	1 tooth, 11 vertebrae	3 vertebrae
	Sea bass	2 central vertebrae		
	Sea bream	1 premaxilla or dentary	1 opercle	
	Sp. indet.	13 fragments	27 vertebrae, 6 fragments	
Amphibian	Frog	18 various elements	108 various elements	
Reptile	Snake	9 vertebrae	18 vertebrae	
Birds	Duck	1 coracoid (R)		
	Sp. indet.	5		1
Mammals	Sika deer	2	42	
	Wild boar	11	11	
	Rabbit	4	26	
	G. flying squirrel	3	1	1
No. of fragments		2108	18776	195



Fig. 7—Photo of storage pit SK249.

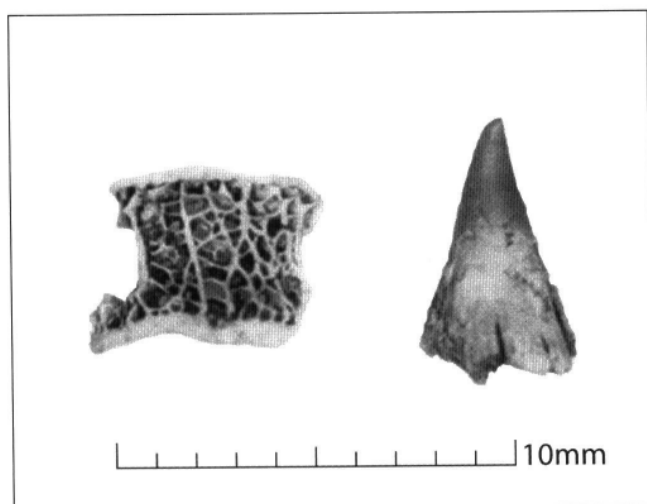


Fig. 8—Left: fragment of vertebra of a salmon. Right: tooth of a salmon.

Amphibians, reptiles and birds are fewer in number on many Jomon sites, and this is true of this site also. There are 108 frog vertebrae and eighteen snake vertebrae as an exceptional case in zone 3, although they are all small individuals, not important for nutrition. There are also eighteen frog bones, nine snake vertebrae and six bird bones from zone 1.

Although most of the unidentified bones are those of mammals, only 101 bones have been identified to species in zones 1, 3 and 6. Sika deer (*Cervus nippon*) is the most common, and 44 specimens have been identified. The wild boar (*Sus scrofa*) is also a common game animal in Japan, and 22 teeth and other elements were identified.

There are some small mammals like hare (*Lepus brachyurus*), giant flying squirrel (*Petaurista leucogenys*) and weasel (*Mustela itatsi*). These are also popular game animals in Japan and were probably hunted for their skins.

Discussion and conclusion

The purpose of this paper is to introduce and discuss the peculiar plant and faunal remains and features recovered from the Sakuramachi site. This site was inhabited continuously from the Initial to the Final Jomon, for more than 5,700 years, and onwards into the Yayoi and more recent times. The settlement was preserved by the occasional landslides, especially occurring at the beginning of the Late

and Final Jomon, at c. 4000 and 3000 cal. BP. These landslides have preserved the activity areas in good condition, including many wooden remains. In particular, many structural parts like beams and posts, previously archaeologically unknown or traced back here to much older phases of the Jomon culture, have been unearthed. Most of these materials and other wooden remains are made of chestnut. This indicates that the Jomon people depended on this tree not only for its edible nuts but also for various other purposes, such as structures and fuel.

There are many storage pits and much debris of nutshells from the Jomon period. The most abundant nuts are of chestnut, horse chestnut and the acorns of deciduous forest trees. These useful trees may have been managed within the settlement and its surrounding forest. Many large stumps, especially of horse chestnut, have been found in and around sites not only at Sakuramachi but also in Tokyo and eastern regions of Japan from the Middle Jomon period onwards.

The taphonomic condition of green (raw) bone is not the same as that of plant remains. Mostly covered with volcanic ash-based acid soil and having a rainy monsoon climate, Japanese lands are not ideal for the preservation of faunal remains, which consist primarily of calcium and phosphorus. As sieving had not been widely used in Japan, it was rather rare to collect faunal remains on alluvial open dry sites. The number of excavations in which sieving has been undertaken has increased recently because of the influence of foreign archaeology and the development of archaeology itself. At this site, most of the faunal remains collected by water-sieving show signs of exposure to fire. The reason why faunal remains unearthed from the Sakuramachi site did not decompose is presumed to be because they were burnt or heated. In other words, only those parts burnt and mineralised were free from chemical decomposition and bacterial degradation.

The samples are all fragmented, and only about 2% of the more than 20,000 pieces were identifiable (Table 2). Nevertheless, since faunal remains reported in the past in Japan are mostly recovered either from shell middens commonly found in coastal areas or from cave sites in mountain areas, any samples collected from a settlement site located midway between lowlands and mountain areas are valuable.

These remains demonstrate that people hunted deer and wild boar, just as on many other Jomon sites. They also fished seasonal runs of salmon and trout, then undertook the drying and smoking of these and other freshwater fish. A

high ratio of the fish remains from the Sakuramachi site are of the anadromous salmon (*Oncorhynchus*). Dog salmon and cherry salmon were important food resources for the Jomon people in eastern Japan. As the actual remains of salmon are rather poor and scarce in most shell middens in eastern Japan, a considerable number of archaeologists did not agree with this proposition. I myself proved that salmon remains could be found by the sieving of inland sites and shell midden soil (Matsui 2005).

The Jomon culture flourished more in eastern Japan than in the west, and population densities are similarly uneven. Some archaeologists emphasise that the uneven distribution of natural resources, especially of salmon and nuts, was a decisive factor in this regard. Others believe that the carp family and Ayu fish (*Plecoglossus altivelis*), the indigenous catadromous fish in Japan, were more important for the western Jomon people, and that salmon and nuts are not the reason for the population variation.

Some written sources from the Edo period indicate that salmon were once seen in the Oyabe River, the main stream of the Konade River, and were subject to taxation (Kojima 2001). Likewise, cherry salmon and dog salmon are said to have run upstream to spawn on the Konade and Oyabe rivers in the past. The Sakuramachi site is located at the margin of the alluvial fan, and it is conceivable that the streams in the area were accompanied by riverbed flows, providing ideal environments for salmon to spawn. The fact that at the Sakuramachi site the number of salmon remains exceeds those of the carp family or other fish suggests that, to the inhabitants, seasonally running salmon were the most important fish resources. Cherry salmon in early summer and dog salmon in autumn would swim the rivers in great numbers and were probably caught instantly, sun-dried or smoked on smoking racks for preservation, and utilised as stored foods, with chestnuts, walnuts, horse chestnuts and acorns, for the season when food was less abundant, from the late winter to the early spring in general. This may be the first proof of the significance of salmon as an important resource among other carp family and Ayu fish.

It is clear that the collecting, storing and processing (including removing of harsh tastes) of some acorns, horse chestnuts and other nuts, and fishing, probably including the preserving and storage of salmon and trout, were carried out at this site. This indicates that the site was occupied from early summer for fishing cherry salmon, or autumn for fishing dog salmon and collecting, storing and processing nuts, which would then have been consumed from autumn

to early spring. The salmon and nuts were important resources for Jomon subsistence in eastern Japan and provided significant benefits for the Jomon people at Sakuramachi, in spite of occasional floods and landslides.

Acknowledgements

In 1991 I participated and presented a paper at the first Wetland Archaeology Research Project conference held at the University of Exeter. I also joined a post-conference excursion organised by Professor Barry Raftery to a wetland site in Ireland and was greatly impressed by the archaeology scene there. In 1997 I received research funds from the Ministry of Education and invited Professor Raftery to Japan in March. He mingled with Japanese students and archaeologists through his lectures and visits to Japanese archaeological sites. I was also able to invite him in June 1997 to attend the International Conference on Ancient Lakes held at Lake Biwa Museum, where he made a presentation on the crannogs in Ireland. We rekindled our friendship when the 1998 Wetland Archaeology Research Project conference was held at UCD; he kindly invited me for lunch at his home after the conference, where we had a wonderful time. I hope he will have a calm and composed life with his family.

Note

- (1) Saponin and aloin give horse chestnut the most bitter taste. It needs to be boiled with ashy water in order to make it edible. By contrast, the acorns of the deciduous forest trees need to be ground to powder and then leached in running water before being boiled, while those of the evergreen forest only need to be ground to powder and boiled.

Bibliography

- Casteel, R. 1976 *Fish remains in archaeology*. London and New York. Academic Press.
- Hirofujii, N. and Matsui, A. 2007 Faunal remains recovered from the Sakuramachi site (Sakuramachi iseki no doubutsu izontai). In Oyabe City Board of Education (ed.), *Archaeological report of Sakuramachi site (Tōyama*

- ken Oyabe-shi Sakuramachi iseki hakkutsu chousa houkokusho*), *Jomon Pottery (2), Wooden implement, Architectural elements, Environmental analysis*, 9–21. Oyabe City.
- Investigating Commission of the Sakuramachi Site (Sakuramachi iseki chousadan) (ed.) 2001 *Sakuramachi iseki hakkutsuchousa gaihou (Preliminary report of the Sakuramachi site)*. Tokyo. Gakusei-sha.
- Kojima, T. 2001 Katte Oyabe-gawa wo sake ha nobotta (Once salmon run the Oyabe River). In Sakuramachi iseki chousadan (Investigating Commission of the Sakuramachi site) (ed.), *Sakuramachi iseki chousa gaiho (Preliminary report of the Sakuramachi site)*, 66–7. Tokyo. Gakusei-sha.
- Matsui, A. 1996 Archaeological investigations of anadromous salmonid fishing in Japan. *World Archaeology* 27 (3), 444–60.
- Matsui, A. 2005 Salmon exploitation in Jomon archaeology from a wetlands point of view. *Journal of Wetland Archaeology* 5, 49–63.
- Oyabe City Board of Education (ed.) 1998 *Sakuramachi iseki, tokubetsu ten (Sakuramachi site, special exhibition at Oyabe)*. Oyabe City.
- Oyabe City Board of Education (ed.) 2004 *Toyama ken Oyabesi Sakuramachi iseki hakkutsu chousa houkokusho (Archaeological report of Sakuramachi site, Jomon features, Yayoi, Kofun, Kodai, Medieval (1))*, vol. 1. Oyabe City.
- Oyabe City Board of Education (ed.) 2005 *Toyama ken Oyabesi Sakuramachi iseki hakkutsu chousa houkokusho (Archaeological report of Sakuramachi site, Jomon features (2), Yayoi, Kofun, Ancient and Medieval (3))*. Oyabe City.
- Oyabe City Board of Education (ed.) 2006 *Toyama ken Oyabesi Sakuramachi iseki hakkutsu chousa houkokusho (Archaeological report of Sakuramachi site, Jomon pottery, lithic tools (1), Part 1)*. Oyabe City.
- Oyabe City Board of Education (ed.) (in press) *Toyama ken Oyabesi Sakuramachi iseki hakkutsu chousa houkokusho (Archaeological report of Sakuramachi site, Jomon pottery (2), wooden implement, architectural elements, environmental analysis)*. Oyabe City.
- Sasaki, Y. and Noshiro, S. 2004 Utilisation of forest resources in the Late Jomon period deduced from wooden remains for water usage at the Shimo-Yakebe site, Tokyo, Japan. *Japanese Journal of Historical Botany* 12 (1), 37–46. [In Japanese.]
- Sato, Y. and Matsui, A. 2001 Jomon jidai no shokubutsu jijo (The exploitation of plant resources in Jomon period). In Sakuramachi iseki chousadan (Investigating Commission of the Sakuramachi site) (ed.), *Sakuramachi iseki chousa gaiho (Preliminary report of the Sakuramachi site)*, 9–57. Tokyo. Gakusei-sha.
- Watanabe, M. 1970 *Jomon jidai no shokubutsu shoku (Plant foods of Jomon Period)*. Tokyo. Yuzankaku.

Early medieval crannogs and imagined islands

Aidan O'Sullivan

Barry Raftery is one of very few people in the last thousand years, and the only Irish archaeologist, to have spent part of his childhood on a crannog—in his case, on his father's excavations of the Bronze Age and early medieval Crannog 61, at Rathtinaun, Lough Gara, Co. Sligo (Raftery 2003). In reconstructing the early medieval perception and experience of crannogs, we are faced with some obstacles. Firstly, as archaeologists we actually have a poor understanding of what these places looked like when they were occupied (as opposed to the tree-clad, rocky islands that we can see today) (Fig. 1). Secondly, the early medieval documentary sources tell us little about their physical and architectural character—unlike raths, which are abundantly described in early Irish laws, narrative literature and other contemporary accounts. In the early medieval period, however, we can see that people understood and experienced crannogs as islands, and so, by using early medieval saints' Lives, annals, voyage tales and adventure tales about islands and occasionally crannogs, we can explore how crannogs were understood in social and ideological terms.

In early medieval Ireland, people often built and lived on small islands of stone, earth and wood situated in the watery shallows of lakes. These islands, known to us today as crannogs (but undistinguished by the early medieval Irish from other islands, by their use of the words *inis* and *oilén* for crannogs), are amongst the most remarkable and evocative features of the Irish (and Scottish) archaeological landscape and are perhaps amongst the best-known aspects of Ireland's archaeological heritage (e.g. O'Sullivan 1998; 2000; 2001a; 2001b; 2004; Fredengren 2002). Since the nineteenth century in Ireland they have been the subject of antiquarian investigation, while the archaeological excavations of crannogs such as Ballinderry crannogs 1 and 2 (Hencken 1936; 1942) and Lagore (Hencken 1950) were key and formative events in the development of Irish archaeology (O'Sullivan 2003). Modern multidisciplinary excavations of sites such as Moynagh Lough (Bradley 1991) and Sroove, Co. Sligo (Fredengren 2001; 2002), have revealed good evidence for their houses, pathways, palisades, middens and the debris of domestic activity and craft production. Recent archaeological surveys have also

indicated a surprising diversity of chronology, size, morphology, siting and location (Fredengren 2002; O'Sullivan 2004).

Ireland's early medieval crannogs have traditionally been interpreted as defensive island refuges occupied at times of danger, or as high-status or aristocratic lake-dwellings used for social display and prestige (e.g. Warner 1994; O'Sullivan 1998; 2000). Several crannogs, however, have produced relatively modest material assemblages and could be interpreted as the island homesteads of the 'middle classes', or perhaps even the poor. Indeed, most sites may have been like Sroove: the lakeshore dwellings, if not of the poor and unfree, certainly of social groups of lower status (Fredengren 2002). It has also been established through the excavation of smaller crannogs such as Bofeenaun, on Lough More, Co. Mayo (Keane 1995), that many were seasonal or temporary occupation sites used for specialist crafts, particularly iron-working. Furthermore, although early medieval crannogs are usually only thought of as secular dwellings, it is quite likely that many were owned and used by the church. Indeed, some known crannogs are situated suspiciously close to early medieval monasteries and churches (such as School Boy Island on Lough Ennell, located opposite the monastic site of Lynn, Co. Westmeath). It is possible that the discoveries in recent decades of early medieval ecclesiastical metalwork (e.g. hand-bells, crosses and book-shrines) on some midlands crannogs suggest their use as storage places for relics or perhaps even as island residences for anchorites and hermits supported by the nearby monastery. There is an even more interesting explanation for these—that they were some form of votive deposits in the early Middle Ages (O'Sullivan 2007). In any case, different types of crannogs were built, used and occupied by various social classes in early medieval Ireland.

In this paper, I use some evidence from archaeology, early Irish narrative literature and early medieval hagiographies to reconstruct how people may have perceived and understood crannogs as islands, and how these islands fitted into the worlds that people lived in—how they worked in people's mental geographies or indeed *mentalités*, to use the *Annales* phrase. Oddly, there has rarely been any attempt



Fig. 1—A modern view of a crannog at Coolure Demesne, Lough Derravaragh, Co. Westmeath, eroded by 1,000 years of storms and waves and protected today from browsing cattle, so tree-clad and overgrown. It is difficult for us to imagine what an early medieval crannog might have looked like (photo: Aidan O'Sullivan).

to do this: to investigate how the people of early medieval Ireland themselves thought about crannogs as places in the landscape. They remain for us archaeological monuments that can be classified in terms of their site construction, chronology, size, morphology and siting. But obviously early medieval people would look at us blankly if we were to talk to them about their crannogs in terms of diameter or height. Interestingly, in fact, in the early medieval narrative literature, such as the voyage tales (*immrama*) and adventure tales (*echtrae*), islands are almost never described in terms of their *physical size*; they are always understood in terms of their edges, boundaries and the journeys undertaken to and from them (O'Sullivan 2004).

Early medieval literature, saints' Lives and the annals all portray both islands and crannogs in interesting ways. It is clear that early medieval annals frequently associate crannogs with violence and depict them as places that could be built,

fortified and inhabited, destroyed by fire, looted and sacked by raiders on boats, and overwhelmed by winter storms and floods. In the ninth–twelfth-century hagiographies, saints frequently confront and defeat powerful individuals, usually kings, on their crannogs or defeat monsters on lake islands. Early medieval narrative literature, particularly the ninth–tenth-century voyage tales and adventure tales, also commonly depicts islands as fantastic, otherworldly places, so that heroes often go out onto magical lake islands, eat sumptuous feasts within fantastic houses on them, fight battles and negotiate in various ways with otherworldly women. In the early medieval imagination, islands were often seen as places apart, distant and enigmatic, located in a liminal space between land and water, between this world and the Otherworld.

There is a strong sense, then, of the different ways that islands were used to establish and structure different types of

social identity, particularly in terms of social status, gender (e.g. the male patrimony of islands) and kinship. By inhabiting distant islands, by travelling to them by boat or by negotiating with others upon them, the community's leaders, whether they were kings, saints or other male figures, were often depicted as having an ability to confront otherworldly forces to the benefit of the community. Of course, such early medieval texts were ideologically loaded, with the agenda of ordering society around the normative beliefs of the powerful, the élite and the patriarchal authorities of the church (Moreland 2001). Most stories, for example, describe the actions of kings, saints, heroes and otherworldly characters rather than ordinary folk. Nevertheless, it is possible to explore how both individuals and communities used the architecture and materiality of early medieval crannogs as islands to control and negotiate social relationships within their worlds. In particular, it seems that people used their liminality, their bounded nature and their enigmatically distant architecture in discourses of power.

A motif that occurs in several early medieval texts involves the hero waiting on the shore overlooking a crannog (Fig. 2). In the ninth-century Latin *Life of Áed mac Bricc*, the saint goes and waits impatiently at the harbour of the island of the king of Uí Néill on Lough Lene (*Loch Lemdin*), Co. Westmeath, never to receive his invitation onto the island. The incident relates how a man in the land of Connachta committed fratricide and was brought bound (*ligatus*) to the king of Uí Néill (*ad regem Neill*) to be executed. His parents went to Áed to plead for their son's life in fear of losing both their sons. Áed goes to the king to free the prisoner.

Rex autem erat in insula stagni Lemdin et, ad portum veniens, Aidus in insulam non permetteretur intrare. Erat edictum a rege ne quis deduceret eum in insulam. (Heist 1965, §176, para. 31)

'However the king was on the island of Loch Lemdin and, reaching the harbour, Áed was not permitted to enter. There was an edict from the king that nobody should bring him to the island.'

Despite this, Áed performed a miracle by walking on water and the king released the prisoner.

Similarly, in the twelfth-century *Life of Colmáin maic Luacháin*, the saint goes to *Port na Inse* ('the harbour of the

island'), and looks out from there to the island of Inis na Cairrge on Lough Ennell, Co. Westmeath, where Conall, the king of Fir Tulach, had his residence. The king refuses to send him a boat, so the saint walks across the water dryshod (Meyer 1911, § 64). In the tenth-century *Life of St Mochua* of Balla there are several descriptions of events and incidents on islands, including a brief but significant incident where the saint, angered by being ignored, drowns a king's crannog on Lough Hackett (*Loch Cime*), Co. Galway:

'Mochua went to Lough Cime; and the attendants said to Cennfaelad, son of Colcu, for he was then king of Connaught, "The soulfriend", say they, "of Cellach, son of Ragallach is outside". "It is nothing to us", saith Cennfaelad, "that he is a soulfriend of Cellach's: he shall not enter this island". Then Mochua brought (the waters of) the lake over the island. The king went perforce in a boat after Mochua, and he surrendered himself and his son, and his grandson on bondage to him, and the island to be freed (from tribute); and afterwards it was freed' (Stokes 1890, §§ 4591–864).

Interestingly, the 'freeing' of the island probably refers to the granting of an island to the church free from tax or tribute to the secular authorities and is an interesting example of how some early medieval crannogs may have been the property of the church.

This motif of the saint or other personage standing on a lake shoreline impatiently awaiting the attention of the king out on his island is one, then, that occurs in several of the saints' Lives and also in the narrative literature. Early medieval kings who glibly ignored their shoreline visitors soon found themselves in trouble, as the saints caused the islands to miraculously sink beneath the water. Indeed, an interesting aspect of the early medieval literature is that it often reveals that islands occupied the landscape in a particular way, and that they had to be approached correctly, from an appropriate, designated place on the shoreline.

This is particularly clear in the tenth-century adventure tale *Tochmarc Becfhola*, which relates how a hero brings a woman out onto a mysterious island on a lake (Bhreathnach 1984). In this tale, Becfhola, wife of the king Diarmait mac Aedo Sláne, leaves Tara one morning for a tryst with her husband's foster-son. She loses her way in the woods of Dubthor Lagen (near Baltinglass, Co. Wicklow), and meets a man on the shore of a lake. He brings her across by boat to a mysterious island on the lake named *Inis Dedaid mac in*



Fig. 2—A Photoshop reconstruction of an early medieval crannog at Coolure Demesne, Lough Derravaragh, with images from the National Heritage Park, Ferrycarrig, imposed on a photograph of the crannog above. In this scene we have tried to give a sense of what saints and heroes of the narrative literature saw while impatiently awaiting their boat to the island. Our view today of crannogs has to be that of the distant observer, to use Clifford Geertz's metaphor, but we can use the early Irish literature to reconstruct the past perception of islands (Conor McDermott and Aidan O'Sullivan).

Daill, where there is a sumptuous but empty house (another significant theme in the voyage tales). They eat a meal, then lie side by side for the night, but refrain from having sex. In the morning, the man fights with his brothers and cousins for the patrimony of the magical island. It is worth looking at the description of the island in detail, as well as the ensuing incident.

... She followed him as far as the lake. There was a boat of bronze in the middle of the lake. A woven bronze chain from the boat was attached to the shore and another to the island in the middle of the lake. The warrior hauled in the boat. She goes into the boat before him. The boat was left in a boat house of clay in front of the island.

She went before him into the house. This was a fine house with both cubicles and beds. He sat down. Then she sat down beside him. He reached out his hand as he

sat and brought forth a dish of food for them. They both ate and drank and neither of them was drunk. There was no one in the house. They did not speak to each other. He went to bed. She slipped in beneath his cloak, between him and the wall. However, he did not turn towards her throughout the night, until they heard the call in the early morning from the jetty of the island, i.e. 'come out, Flann, here come the men.' He arose immediately, donned his armour and strode out. She went to the door of the house to watch him. She saw three others at the jetty, who resembled him in form, age and comeliness. She also saw four others at the jetty of the island, their shields held at guard. Then he and the three others went forth (to meet them). They smote one another until each was red with the blood of the other, then each one went his way, injured.

§ He went out to his island again.

'May you have the victory of your valour,' said she, 'that

was an heroic combat.'

'It would indeed be good if it were against enemies,' said he.

'Who are the warriors?' she asked.

'The sons of my father's brother,' he answered, 'the others are my own three brothers.'

'What have you been fighting about?' asked the woman.

'For this island,' he said.

'What is the name of the island?' she asked.

'The island of Fedach mac in Daill,' he said.

'And what is your name?' she asked.

'Flann, grandson of Fedach,' he replied. 'It is the grandsons of Fedach who are in contention. The island is indeed bountiful. It provides a meal sufficient for a hundred men, with both food and ale, every evening without human attendance. Should there be only two people on it, they receive only what can suffice them.' (Bhreathnach 1984, 79)

This is a fascinating passage, with references to places and things that seem to show that islands—and crannogs—were understood in specific ways. It describes an island, a boat on a chain, a boathouse, a jetty, a fantastic house (with an interesting distinction between beds and cubicles, implying that early medieval houses had 'rooms'), as well as the male patrimony of the island itself, which could be won in combat.

Early Irish literature even gives us a story about a king defecating on a crannog during the seventh century, in the tale *Aided trí mac nDiarmaita* ('The death of the three sons of Diarmait son of Cerball'), which purports to describe events about AD 651 (Meyer 1894, 74). In the story, the king, Diarmait Ruanaid (whose obit is provided in the *Annals of Ulster* for AD 664), collects a hosting at his crannog at Lagore to avenge the death of his nephews at the hands of the Leinstermen. He demands that the killer, one Maelodran, is given up to him. The Leinstermen refuse, but Maelodran offers to give himself up. He goes alone to the brink of the island (*for brú indsi Gabar*) and waits until night at the island's 'port'. When his enemies had ceased rowing back and forth from the island, he takes a boat and goes out and waits by the royal house (*rightheac*). In the middle of the night, the king comes out to 'bend his knees' (i.e. to defecate). In front of the house he meets with his enemy, Maelodran. Not recognising him, the king instructs him to 'bring me a wisp' so he can wipe his backside, whereupon Maelodran mischievously brings him a handful of nettles,

and even holds Diarmait's sword while he goes about his business. It is only when the king painfully wipes his bottom with the nettles that he realises that he has been tricked. Threatened with death, he negotiates with Maelodran, to the latter's benefit. Presumably this was not the only time that somebody ended up in an uncomfortable position when stumbling around in the dark on a crannog.

But again it is interesting that the 'port' of Lagore crannog is situated on the mainland, from where boats were going back and forth. We can also use all these texts to help us recognise that a crannog was socially and ideologically meaningful in its location and was set in an ordered landscape. It is clear in the saints' Lives and the adventure tales that each crannog had a particular port, harbour or landing place associated with it, and that this was always located on the adjacent dryland shoreline. This would imply that people in early medieval Ireland understood that one approached a crannog in an appropriate way, only departing the shoreline from a particular point—and arguably that the metaphorical 'gate' of the island is not *on the island* itself but is at a boat landing place located on the dryland shore. There is an element here of controlled access and social performance, both in terms of arrival and procession at the island's harbour, in that it reveals that approaching a crannog was not a casual process. One could not simply arrive there from any direction.

What does this mean for us as archaeologists? Firstly, we can see that crannogs were not exotic objects set out on water but distinctive places linked in with the wider landscape. At a prosaic level, we should expect early medieval crannogs to be associated with dryland features, such as jetties, landing places or even boathouses—and there are certainly hints in the archaeological record of these (O'Sullivan 2004). We should also recognise that crannogs were as integral to the social organisation of settlement landscapes as any other site types, rather than being simply oddities outside the world. Furthermore, we can adopt phenomenological archaeological perspectives to explore how movement and perception worked within known archaeological landscapes. On the shores of Lough Ennell, Co. Westmeath, one of the most impressive of Irish early medieval royal crannogs, Cro-Inis, is situated about 80m offshore. This was the royal site of the powerful Clann Cholmáin kings of the southern Uí Néill between the eighth and eleventh centuries AD. It is overlooked by another significant early medieval royal residence, the large raised ringfort of Dún na Sciath (the 'fort of the shields', also known as a royal site). Both places in this

royal settlement landscape are physically and perhaps socially separated from the nearest 'ordinary' early medieval settlements (i.e. ringforts and churches) by 1.5km of 'empty space'. It could be suggested that the crannog and ringfort, situated at the end of a long natural dryland peninsula which would have been flanked on either side in the early medieval period by fens, marshy ground and lake wetlands, are within a landscape of royal performance (O'Sullivan and Van de Noort 2007, 69–74). The modern visitor to the shore first walks across rich agricultural grasslands, which were more than likely originally part of the royal *faichti* or green that surrounded a royal site. Walking along this ridgeline, it is the ringfort that first becomes visible on the skyline. Only when you come close to the ringfort itself does the crannog reveal itself—floating on the shimmering waves, distant, remote, enigmatic.

Similarly, an early medieval crannog at Coolure Demesne, Co. Westmeath, has recently been investigated and demonstrated to have occupation evidence from the late Bronze Age, the Iron Age/early medieval transition period at c. AD 400, and across the early medieval period and up into the late Middle Ages (O'Sullivan *et al.* 2007). A large early medieval ringfort is situated on the adjacent shoreline, as is often found with early medieval royal sites (Warner 1994). In the early medieval period, it is likely that the crannog was a royal residence of a fairly obscure local dynasty known as the Uí Fíachrach Cuile Fobair (the latter preserved in the place-name Coolure) and a politically strategic stronghold located on the boundaries—which ran down the middle of Lough Derravaragh—of three minor kingdoms in Mide. The crannog is situated in a small bay in this large lake and is surrounded by several smaller crannogs—or rocky platforms—that all have their own causeways out to them. If these are early medieval crannog islets, then they might be related to the larger site in interesting ways. In a sense, the large crannog is situated at the centre of a 'landscape of performance', with politics, power and community identity all playing out around the edges of the bay.

It seems likely that early medieval crannogs may have been used in ideological ways to construct social identities of power and social class. Some few crannogs probably served as strongholds, royal seats, summer lodges and as feasting places, so that the various historical sources simply reflect fact. The use of crannogs by kings may have been intentional in yet another way, however. Early medieval Irish kingship in the seventh and eighth centuries retained some pagan elements of earlier sacral kingship, albeit within a now

Christianised context. The king was theoretically expected to symbolise the union of land and people, and thus retained some role as a mediator between the people and nature, between this world and the Otherworld, which lay below the surface of a lake. The stories about kings on their crannogs, and the fact of their presence there, may have been intended to illustrate the king's role as a mediator with the forces of the watery Otherworld and how this was achieved by the location of his residence on a crannog. While the myths and stories conveyed this ideology orally, the physical location, form and appearance of the crannog signalled on a day-to-day basis the cosmological ordering or 'rightness' of the social structure. The ability to maintain such structures over longer terms would have contributed to the creation of myths and histories reinforcing the symbolic meaning of the crannog. It is also worth remembering that many excavated early medieval royal crannogs were located on crannogs or islets that had been originally constructed in the late Bronze Age, including Rathtinaun, Co. Sligo (Raftery 1994, 32–5; O'Sullivan 1998), Moynagh Lough, Co. Meath (Bradley 1991), and Coolure Demesne, Co. Westmeath (O'Sullivan *et al.* 2007), so that tales of these islands belonging to an ancestral past may also have been important.

Nevertheless, our fascination with early medieval aristocratic crannogs should not deter us from recognising that most early medieval crannogs were occupied by lower social classes. Most early medieval crannogs were actually small islands, situated in shallow water close to their shorelines and accessed by stone or timber pathways or causeways (Fig. 3). It is still the case, however, that social groups were inhabiting wetlands, using water to construct a social distance and to bound the dwelling-place. Fredengren's (2001; 2002) survey and excavations on Lough Gara, Co. Sligo, revealed that many of the small crannogs there were occupied in the early medieval period. Fredengren (2002) argues that Lough Gara's crannogs were situated in places that were peripheral to the main settlement landscape of early medieval ringforts, churches, ogham stones and other 'tribal nodes'.

The early medieval crannog at Sroove, dated to between the seventh and tenth centuries AD, was used in diverse ways across time (Fredengren 2002, 220–43). It was initially a small island dwelling, with a house enclosed within a wooden palisade. Its inhabitants left few material possessions, although they certainly had access to cattle, pig and sheep meat, as well as cereal grain. There was almost no attempt to 'exploit' the lake's wetland resources of fish,

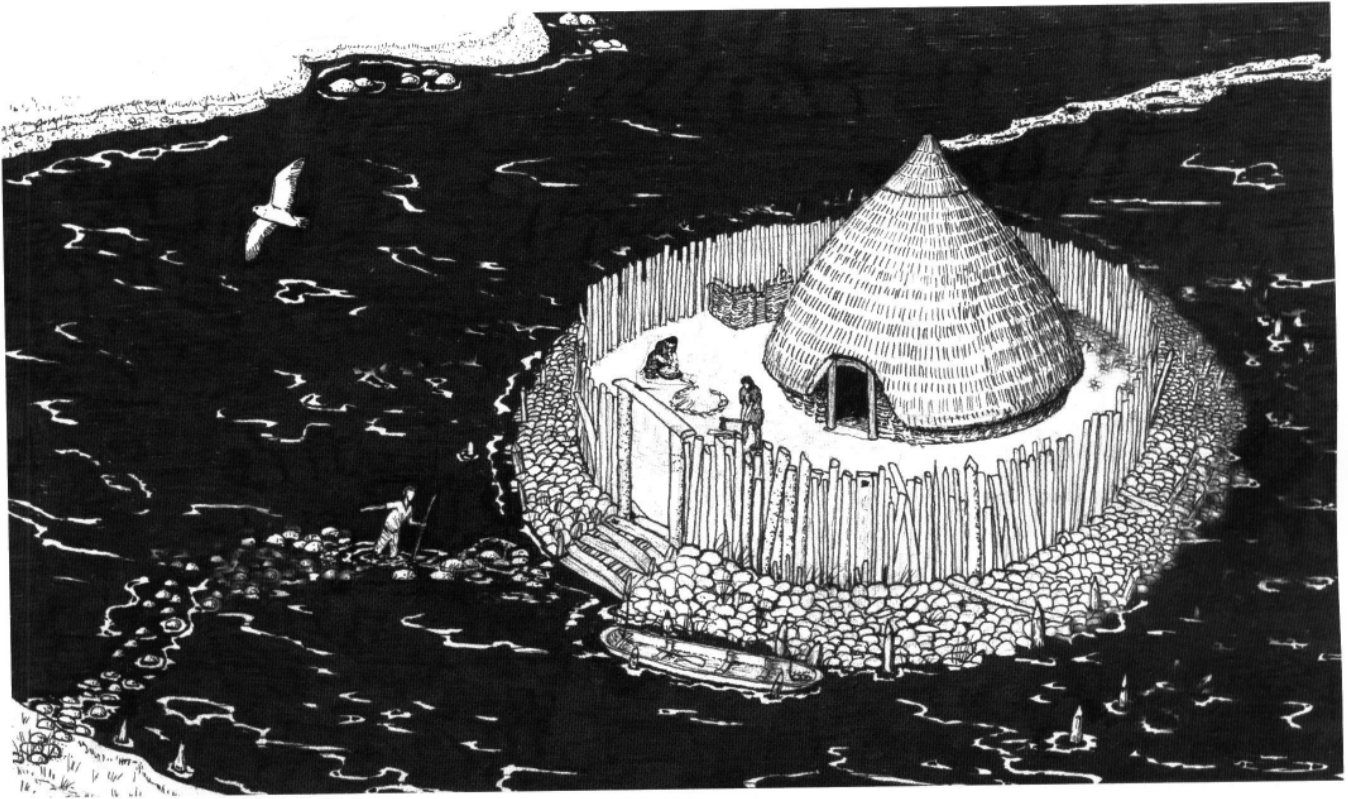


Fig. 3—An imagined crannog. It is striking how few reconstruction drawings have been done of Irish crannogs—and how like William Wakeman's drawing of 1886 they all are. In this drawing, a reconstruction is attempted of a smaller, low-status crannog such as those known from around Lough Derravaragh and Lough Gara. A simple stone causeway leads to a small islet, whereon there is a single house. Nevertheless, even these crannogs achieved liminality, boundedness and a sense of distance (Aidan O'Sullivan).

waterfowl or plant foods. The island was used towards the end of the early Middle Ages as an open-air iron-working platform, seemingly not functioning as a settlement. Fredengren (2002, 241–3) suggests that this shows how crannogs changed in meaning across time, using the idea of 'interpretative drift' to explore how people would have used this small site firstly as a domestic structure, then as an open-air platform of shattered stone for forging iron, before it was abandoned.

An early medieval crannog at Bofeenaun, Co. Mayo, was also used as an iron-working platform, with no evidence for houses, domestic debris or artefacts and abundant evidence for iron slag, stone mortars and industrial activity (Keane 1995). It could be suggested that crannogs like these could be interpreted as the island workshops of blacksmiths, who were seen as semi-mythical personages in early medieval mythology, situated on the edge of society, and who perhaps used these boundaries of islands, water and distance to protect the arcane secrets of their trade. This would certainly fit with those modern ethnographic studies that suggest that

smiths are often people who work at the edges of society.

This link between islands and blacksmiths can also be explored in the narrative literature. Principal amongst the early medieval voyage tales or *immrama* that deal with islands is the eighth-century *Nauigatio Sancti Brendani abbatis* ('Voyage of St Brendan the Abbott', possibly written c. AD 800), which describes the travels of the sixth-century Brendan and some of his monks on a seven-year journey on the wide ocean, where they meet with marvellous islands, sea creatures and other wonders. This voyage tale was written down at precisely the same time as Bofeenaun, and possibly Sroove, were used as iron-working platforms. There is an interesting incident in the *Nauigatio Sancti Brendani abbatis* that seems to give an insight into how these crannogs might have been perceived.

One day during their voyage, the monks encounter the 'island of smiths', where some otherworldly blacksmiths were working, with the billowing smoke and noxious smells all conveying the danger of the place. Indeed, the monks barely escape with their lives, as the smiths cast steaming

lumps of slag after them as they fled. Although it is probably metaphorical of hell (and perhaps descriptive of a volcanic eruption witnessed on Iceland) and should not be taken as a literal description, the island is uncannily similar to what an outsider could have seen at Bofeenaun and Sroove, so is worth quoting in full. Imagine, while reading it, that you are standing on a shoreline looking across at a small crannog situated only a few metres out in the water.

After eight days they caught sight of an island not far away, very rough, rocky and full of slag, without trees or grass, full of smiths' forges. The venerable father said to his brothers:

'I am troubled about this island. I do not want to go on it or even come near it. But the wind is bringing us directly there'.

As they were sailing for a moment beside it, a stone's throw away, they heard the sound of bellows blowing, as if it were thunder, and the blows of hammers on irons and anvils. When he heard this the venerable father armed himself, making the sign of the Lord in all four directions, saying:

'Lord, Jesus Christ, deliver us from the island.'

When the man of God had finished speaking, one of the inhabitants of the island was seen to come out of doors apparently to do something or other. He was very shaggy and full at once of fire and darkness. When he saw the servants of Christ pass near the island, he went back into his forge. The man of God blessed himself again and said to his brothers:

'My sons, raise the sail higher still and row as fast as you can and let us flee from this island.'

Even before he had finished speaking, the same savage came to the shore near where they were carrying a tongs in his hands that held a lump of burning slag of immense size and heat. He immediately threw the lump on top of the servants of Christ, but it did no hurt to them. It passed more than two hundred yards above them. Then the sea, where it fell, began to boil, as if a volcano were erupting there. The smoke rose from the sea as from a fiery furnace.

But when the man of God had got about a mile away from the spot where the lump fell, all the islanders came to the shore, each of them carrying a lump of his own. Some of them began to throw the lumps after the servant of Christ into the sea, the one throwing his lump over the other, all the while going back to the forges and

setting the lumps on fire. It looked as if the whole island was ablaze, like one big furnace, and the sea boiled, just as a cooking pot full of meat boils when it is well plied with fire. All day long they could hear a great howling from the island. Even when they could no longer see it, the howling of the denizens still reached their ears, and the stench of the fire assailed their nostrils. The holy father comforted his monks, saying: 'Soldiers of Christ, be strengthened in faith unfeigned and in spiritual weapons, for we are in the confines of Hell. So, be on the watch and be brave.' (Selmer 1959; trans. O'Meara 1976)

Typically, the smith is seen as someone who works under the patronage of his lord. More rarely has it been considered how such individuals themselves had agency and acted to promote their own social and economic interests. It might be suggested that the Bofeenaun and Sroove crannogs—and presumably other unexcavated island workshops—indicate that the blacksmith on his island was both excluding the rest of the community and being slightly feared and misunderstood by them. Although the community may have participated in the quarrying of ores, and certainly in the use of the products, this island stage was literally off limits. An outside observer standing on the lakeshore at either Bofeenaun or Sroove crannog would witness only billowing smoke, smell noxious fumes and hear the din of the smith's hammer, but would see little of the intricacies and skills of the iron-working process. In a sense, crannogs might have been used as places for the negotiation of knowledge and power, deliberately isolated so as to maintain a social distance and to preserve the secrets of a specialist craft.

In conclusion, is it not paradoxical that islands could be places for kings at the same time as they could accommodate seemingly socially marginal[ised] groups such as blacksmiths, the poor, women, the young and even monsters? Liminality is a fluid and mutable concept, however, and people could be both seeking and avoiding it, according to their social status, gender and role in the community. In the early Middle Ages, the king placed his royal residence on an island to achieve a social distance and a reputation for power, but at the same time he was at the physical and symbolic centre of the early medieval social landscape. The lord built his residence on a crannog to emulate the powerful, and to protect his own wealth and that of the community. The 'middling folk', the poor and socially marginalised, may effectively have been doing the

same thing, inhabiting places at the edge of land, maintaining their own identity and sense of place, while perhaps also being marginalised by others. Early medieval crannogs on lakes were places at the edge, at the same time as they were places at the centre of people's lives. Imagining how people in early medieval Ireland understood islands enables us to begin to rethink how crannogs were situated in their wider worlds.

References

- Bhreathnach, M. 1984 A new edition of *Tochmarc Becfhola. Ériu* 35, 59–91.
- Bradley, J. 1991 Excavations at Moynagh Lough, Co. Meath. *Journal of the Royal Society of Antiquaries of Ireland* 111, 5–26.
- Fredengren, C. 2001 Poor people's crannogs. *Archaeology Ireland* 15 (4), 24–5.
- Fredengren, C. 2002 *Crannogs: a study of people's interaction with lakes, with particular reference to Lough Gara in the north-west of Ireland*. Bray. Wordwell.
- Heist, W.W. 1965 *Vitae sanctorum Hiberniae ex codice olim Salmanricensi nunc Bruxellensi*. Brussels. Société des Bollandistes.
- Hencken, H. O'Neill 1936 Ballinderry crannog no. 1. *Proceedings of the Royal Irish Academy* 43C, 103–239.
- Hencken, H. O'Neill 1942 Ballinderry crannog no. 2. *Proceedings of the Royal Irish Academy* 47C, 1–76.
- Hencken, H. O'Neill 1950 Lagore crannog: an Irish royal residence of the seventh to tenth centuries AD. *Proceedings of the Royal Irish Academy* 53C, 1–248.
- Keane, M. 1995 Lough More, Co. Mayo: the crannog. *Irish Archaeological Wetland Unit Transactions* 4, 167–82. University College Dublin.
- Moreland, J. 2001 *Archaeology and text*. London. Duckworth.
- Meyer, K. (ed.) 1894 The death of the three sons of Diarmait mac Cerrbeóil. *Anecdota Oxoniensia* (1894), 70–5.
- Meyer, K. 1911 *Bethach Colmáin Maic Lúacháin: Life of Colmán son of Lúachan*. RIA Todd Lecture Series, 17. Dublin. Royal Irish Academy.
- O'Meara, J.J. (trans.) 1976 *The voyage of Saint Brendan*. Dublin. Dolmen.
- O'Sullivan, A. 1998 *The archaeology of lake settlement in Ireland*. Dublin. Discovery Programme/Royal Irish Academy.
- O'Sullivan, A. 2000 *Crannogs: lake-dwellings of early Ireland*. Dublin. Town House.
- O'Sullivan, A. 2001a Crannogs—places of resistance in the contested landscapes of early modern Ireland. In B. Bender and M. Winer (eds), *Contested landscapes: landscapes of movement and exile*, 87–101. Oxford. Berg.
- O'Sullivan, A. 2001b Crannogs in late medieval Gaelic Ireland, c. 1350–c. 1600. In P. J. Duffy, D. Edwards and E. Fitzpatrick (eds), *Gaelic Ireland: land, lordship and settlement, c. 1250–c. 1660*, 397–417. Dublin. Four Courts Press.
- O'Sullivan, A. 2003 The Harvard Archaeological Expedition and the politics of the Irish Free State. *Archaeology Ireland* 66, 10–13.
- O'Sullivan, A. 2004 The social and ideological role of crannogs in early medieval Ireland. Unpublished Ph.D thesis, Dept of Modern History, NUI Maynooth.
- O'Sullivan, A. 2007 Exploring past people's interaction with wetland environments in Ireland. *Proceedings of the Royal Irish Academy* 107C, 147–203.
- O'Sullivan, A. and Van de Noort, R. 2007 *Rethinking wetland archaeology*. London and New York. Duckworth Press.
- O'Sullivan, A., Sands, R. and Kelly, E.P. 2007 *Coolure Demesne crannog, Lough Derravaragh: a crannog and its landscapes*. Bray. Wordwell.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 2003 Once upon a time in the west. In J. Fenwick (ed.), *Lost and found: discovering Ireland's past*, 139–50. Bray. Wordwell.
- Selmer, C. (ed.) 1959 *Navigatio Sancti Brendani Abbatis*. Notre Dame. University of Notre Dame Press. [Reprinted Dublin, 1989.]
- Stokes, W. 1890 *Lives of the saints from the Book of Lismore*. Oxford. Clarendon Press.
- Warner, R.B. 1994 On crannógs and kings (part 1). *Ulster Journal of Archaeology* 57, 61–9.

2. Artefacts and contexts

Working with wire—the functional and decorative uses of gold wire in Bronze Age Ireland, 2200–700 BC

Mary Cahill

'And he made the ephod of gold, blue and purple and scarlet, and fine twined linen. And they did beat the gold into thin plates, and cut into wires, to work it in the blue, and in the purple, and in the scarlet, and in the fine linen, with cunning work'

Introduction

The passage above from the Book of Exodus, Chapter XXXIX, verses 2–3, has been quoted by Wigley (1898, 80) and many others to attest to the antiquity of the manufacture of gold wire. The spur for this paper on the functional and decorative uses of gold wire in Bronze Age Ireland, and the reason why I hope it will be acceptable to Barry for his Festschrift, is that gold wire was discovered in his excavation of Rathgall, Co. Wicklow. This paper is intended to be a general survey of the different types of gold wire and their application during the Bronze Age in Ireland. Gold wire is used throughout the period, but when used to provide support or as a means of attachment it may be hidden from view and overlooked. Decorative wires are more visible, but they may also be overlooked owing to their minute size. Confusion may occur because of the fact that the visual impression of decorative filigree wires can be produced by punching to produce a false wire effect. Personal ornaments of both very simple and very complex construction can also be made solely from wire. Wire can be made in a great variety of forms, from simple flat wires cut from sheet, to elaborate decorative filigree wires to extremely fine drawn wire. Wigley (1898, 80) states that 1oz (30g) of gold can be drawn into 20,000 yards (18,288m) of wire. During the period under discussion various types of wire, with the exception of drawn wire, are used in many different ways. The wires vary from simple straight wires to sophisticated strip-twisted wires.

Methods of making wire

Various methods have been used in antiquity to make wire. While a number of different types of wire were used during

the period under discussion in this paper there is no evidence for the use of drawn wire, which is thus excluded from further reference. This brief introduction to the ways in which wire is made is largely derived from the work of Andrew Oddy (1977; 1979; 1980; 1983; 1987) and is intended to provide some technical background to the wires from the Irish corpus. Niamh Whitfield (1990) in a discussion on the use of round wire in the early Middle Ages also provides a very good background to this subject, much of which is applicable to the prehistoric period. The opinions expressed in this paper are based on surface characteristics studied under microscope. In the case of complete objects it is often difficult to observe fully and to measure wires accurately. As Oddy (1987, 175) points out, in studying ancient wire technology it is important that metallurgical studies of polished and etched cross-sections are conducted together with studies of the surface characteristics. An archaeo-metallurgical study of the Irish material would yield much additional information. This paper hopes to lay the foundation for further interdisciplinary work.

Plain round wire (Pls 1A, 2 and 3)

The simplest technique involves hammering an ingot to the required thickness in a number of stages, including a faceted rod that with further hammering produces a wire of approximately circular section. Irregularities in the surface can be eliminated to some degree by rolling the wire between two flat pieces of hard wood or stone, but the hammering of the rod also leaves characteristic longitudinal 'creases' that are visible under the microscope. These are quite unlike the striations left by drawing and so it is possible to distinguish one from the other. The plain wire found with the late Bronze Age hoard from Gorteenreagh, Co. Clare, for example, shows evidence of such long creases (Pl. 1A). Oddy (1987) also describes another method which produces an approximately C-sectioned wire by folding a strip of metal. A rounded wire is produced by hammering the folded strip on an anvil. A length of thick copper wire found with the middle Bronze Age hoard from Derrinboy, Co. Offaly, seems to have been made using the folding technique.

Wire of D-shaped cross-section (Pls 1B and 5)

A variant of the rounded hammered wires can be produced by hammering the wire in a swage block or an anvil with swages (i.e. prepared grooves). The anvil from the hoard found at Fresné-la-mer, France (Éluère 1982, 177), would produce a wire of semicircular section similar to that used for the Derrinboy, Co. Offaly, necklet. Oddy (1980) cites two examples of wire of flattened semicircular section. He describes a Mycenaean sword with a gold wire-bound hilt (dated to c. 1200 BC) and a necklet of gold beads from Szöny, Hungary (dated to 1400–1200 BC), which includes a spiral bead made from a wire of flattened semicircular section said to be similar in all respects to the wire from the Mycenaean sword.

Twisted wire of angular cross-section (Pls 4, 6, 7, 8 and 10)

The technique known as block-twisting is a more sophisticated method that produces a more regular rounded wire. In this case an ingot is hammered into a square-sectioned wire of the required thickness and then twisted as tightly as possible to produce the so-called 'barley sugar' stick effect. The twisted bar is then rolled between two flat pieces of hard wood. This results in a wire that is solid, more or less round in cross-section, of fairly even diameter along its length and is also smooth. This type of hand-made wire has been shown to form two distinctive helical creases (Oddy 1979, 45). It can be shown from the Irish record that twisted angular-sectioned wires made as described above were used both as functional and decorative wires. A similar wire can be made from a bar of triangular section. Examples of this type will be described further below.

Strip-twisted wire (Pl. 9)

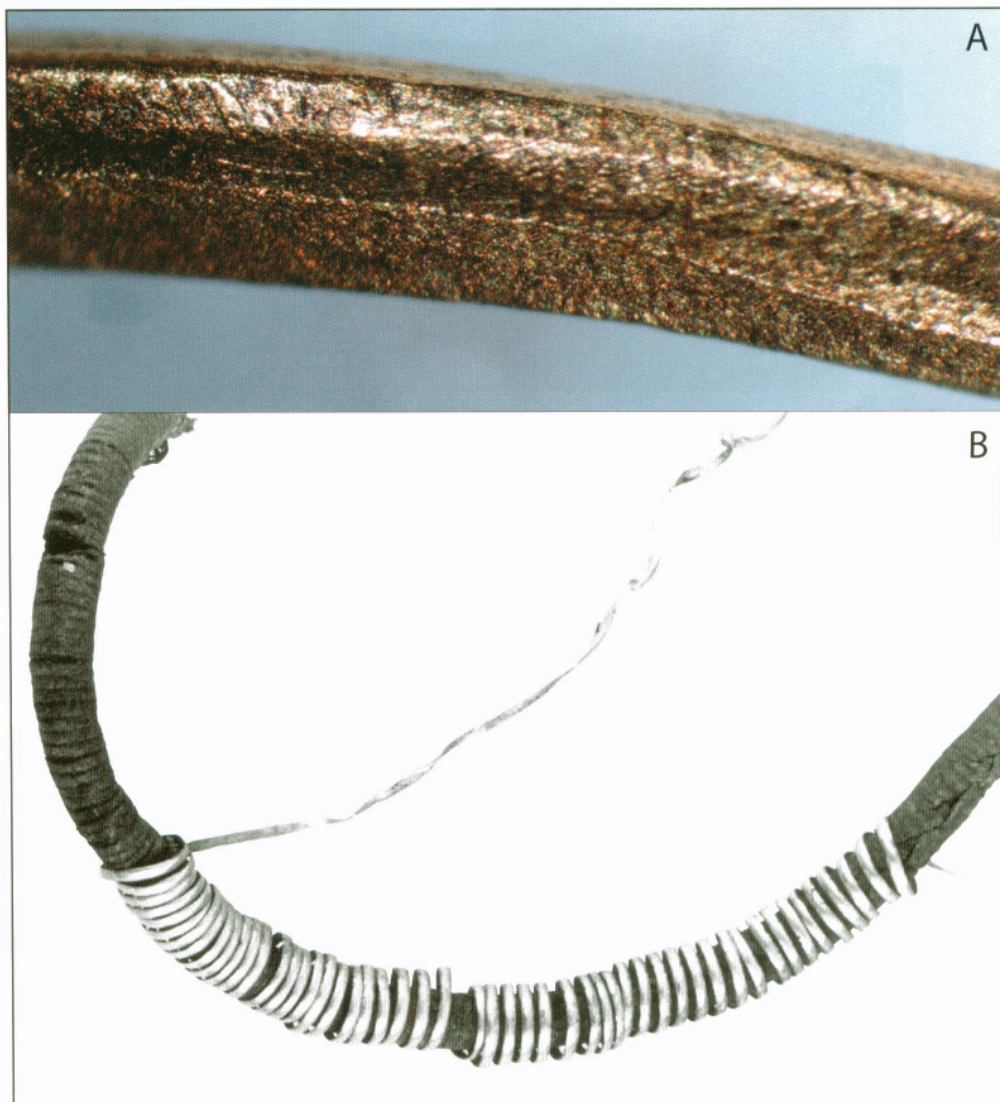
Strip-twisted wire is also known from the Irish Bronze Age. Briefly, this involves cutting a strip of metal foil and twisting it around another wire. On removing the wire the hollow coil produced is tightened and extended. On completion, strip-twisted wire has the following characteristics as described by Oddy (1977, 85): the wire is of fairly even diameter; it is hollow and round in cross-section; it has a single seam running in a helix round the wire; if it has been drawn through a series of dies to smooth it, very fine parallel scratches may be seen. It is also possible to make strip-

twisted wire without a core, using the fingers to make the coil as described by Whitfield (1990, 18). Strip-twisted wire is the type of wire that was used in Ireland to make lock-rings, as described below.

Early Bronze Age

There is no surviving wire of early Bronze Age date known from Ireland, but there is evidence to suggest that some lunulae were repaired using wire. The lunula found at Coolaghmore, Co. Kilkenny (NMI 1992:5), has a row of six punched holes just inside the edge of the sheet where the terminal section of the lunula has broken away from the body of the collar, which suggests that a repair was made using the holes (Cahill 2005a, 55, pls 2–3). Although the terminal portion has not been recovered, it is assumed that it would have had a similar set of holes through which the lunula could have been repaired by stitching, using a length of wire. Soldering or fusing the matching edges would not have been an option owing to the extreme thinness of the sheet. In any case, there is no evidence for soldering at this period. Punched holes have also been observed on two lunulae from Scotland—one from Auchentaggart is missing a fragment of the right-hand terminal (Taylor 1980, pl. 14a, d) and has a series of holes punched through the damaged edge of the terminal. The lunula from Orbliston shows a similar set of punched holes in the right-hand terminal (*ibid.*, pl. 14b, g). While it has been suggested (Anderson 1886, 224) that these repairs might have been achieved by using gold pins or rivets, there is no evidence for the use of pins and/or rivets in Irish gold-working at this time, although gold pins have been used elsewhere. Gold wire has been reported in connection with the discovery of a skeleton in a cave at Knockane, Co. Cork, in the early nineteenth century. It was described (Cahill 2006, 270) as having been covered by thin plates of gold connected by bits of wire. Only one decorated plaque survives. It has some small holes around the edges of the object through which other plaques could have been attached by very thin wire. As the early goldsmiths were highly skilled in hammering ingots into sheet, making the simplest type of wire that is just a narrow strip cut from a sheet would have been well within their capabilities. Alternatively, by hammering an ingot until it reaches the required thickness, a wire of more or less rounded form can be made as described above. As no wires of early Bronze Age date have been recorded, however, it may

Pl. 1—(A) Round gold wire from the gorget from Gorteenreagh, Co. Clare. (B) Gold wire-wrapped necklet from Derrinboy, Co. Offaly (before restoration); detail showing the D-sectioned wire and leather core (© NMI).



be suggested that a goldsmith would prefer to effect a repair using gold rather than any other material for practical and aesthetic reasons.

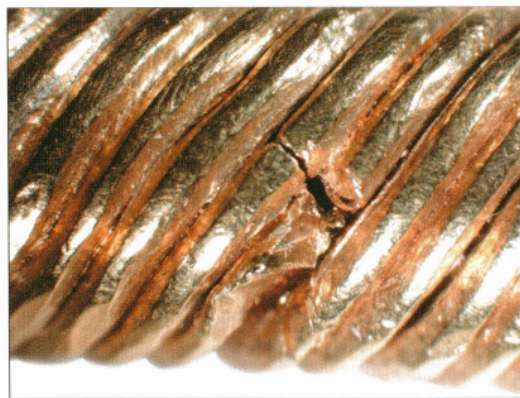
Middle to late Bronze Age

The earliest surviving gold wire comes from an object that is the only one of its type known from Ireland to date. The hoard of gold objects found in a bog at Derrinboy, Co. Offaly, in the late 1950s consisted of two sheet-gold armlets, two so-called 'tress-rings' made from heavy sheet gold, a length of copper wire and a presumed neck ornament (NMI

1959:697) made from a finely stitched leather core around which a length of gold wire was tightly coiled. Both ends of the necklet were gathered together in a stud-like gold clasp. The wire is D-shaped in section (Pl. 1B). The length of the wire has been calculated at 15.25m (J. Raftery 1961, 56), although the method of calculation is not mentioned. The width of the wire is 1mm and the maximum thickness 0.5mm. The wire has the appearance of being a single continuous length (and was described as a single length by Raftery), but a closer look reveals that it is made up of a series of strips of wire that have been joined together. It appears that the joins have been achieved by fusing or hammer-welding the ends of the strips together. The strips of



A



B

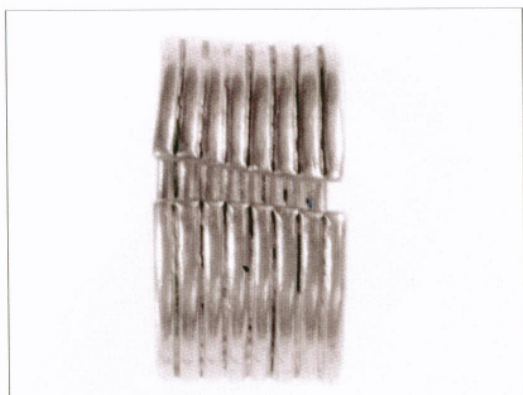
Pl. 2—Gold wire-wrapped torc from near Aughrim, Co. Galway. (A) Detail of the junction of the terminal and the bar; (B) a close-up of the wires (© NMI).

wire would have been made by hammering a thin bar into a swage or groove in an anvil of D-sectioned shape. A sample of the leather core has been dated to 3310 ± 50 BP/1740–1450 cal. BC (at 95% probability; GrA-15376). Another example of wire manufactured by the same method was found during the excavations at Haughey's Fort, Co. Armagh, where small scraps of gold were found in sieving the contents of a pit. These scraps strongly suggest that gold-working was taking place at the site, as they are the sort of debris that one might expect to find in a workshop setting. Amongst them were two small pieces of wire—one of D-shaped section and one that is completely flat. Mallory (1995, 78) has indicated that these pits date from c. 1250–900 cal. BC and are broadly contemporary with the ditches and post-pits recorded from the site. In his opinion, the defences at Haughey's Fort were established c. 1100 $\pm$ 50 BC and the site was abandoned within a century (Mallory 1995, 75).

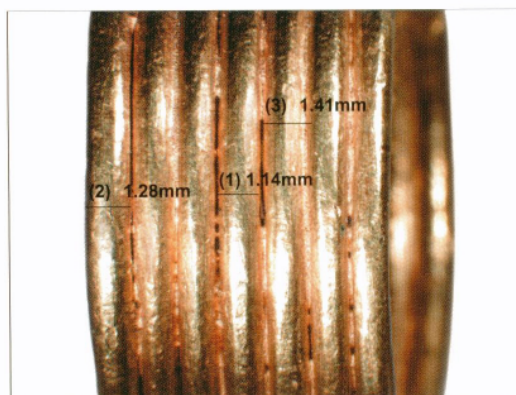
The visual effect of the tightly wound wire around the leather core of the Derrinboy necklet is similar to the gold torc from Aughrim, Co. Galway (NMI W174). Here the extremely tight twisted effect has been achieved by winding four wires together around the massive gold core of the torc (Pl. 2A). These wires are rounded in cross-section and, again, would have been produced by hammering out lengths of wire and then rolling the wires to give them a more finished, rounded appearance (Pl. 2B). Although very closely spaced, the wires are quite separate from one another and there was no attempt to connect them, except at the ends of the bar

where they are narrower and partly coalesce as they meet the terminals. The wires vary considerably in diameter over their length. They are difficult to measure but generally vary from 1mm to 1.5mm. It is not clear from visual examination how the wires are attached to the terminals: there is some evidence that they were hammered to form a flat surface but this is not uniform at the terminals. Only one other similar example of this type of torc is known, from Chatham in Kent (BM 1873.2-12.1; an illustration can be seen in the *Archaeological Journal* (1873), 30, 97). This survives as a massive coiled fragment, unlike the Aughrim torc, which is complete with conical terminals. The cut ends show clearly that the bar has been deeply incised to give the impression of wound wire.

Solid wires were also used to make ribbed rings (Pl. 3A–B). These small penannular objects, probably used as finger-rings, were made in a number of different ways, the most common of which is by stacking a number of short lengths of wire (one on top of the other) to produce a ribbed ring, e.g. the unlocalised ring NMI W252 (Armstrong 1920, pl. XIV, 236). In this example eight wires have been used to make the ring. The wires vary in diameter over their length but the mid-point of one of the outer wires is 1.4mm in diameter. The ends of the wires are smoothed and finished to give a continuous slightly flanged edge. It is not clear how the wires are joined. They are separated from one another by a 'flow' of metal that may be solder or the result of fusing, but this requires verification by further metallurgical study. The metal between the ribs is continuous in some places but



A



B

Pl. 3—(A) Ribbed ring, no locality, Ireland (NMI W252). (B) Detail of the wires (© NMI).

in others quite patchy. It also has a slightly different texture in that it appears, under magnification, to be more granular, suggesting that it is solder. In this aspect, the ribbed rings are quite different from the wires on the Aughrim torc, which can be clearly seen to be separate over almost the entire surface of the torc except, as noted above, where the wires are drawn together where they meet the terminals.

Both the Aughrim torc and the ribbed rings seem to employ a similar type of wire that is rounded in character but variable over its length in both section and diameter. Irregular facets are also visible, suggesting that these are hammered wires that may or may not have been rolled. Only the outer surfaces of the wires on the Aughrim torc can be seen. A partial view of the interior of the ribbed rings can be gained and the inner surfaces do not appear much more or less finished than the outer surfaces. Also of interest in this context is a possible gold spiral bead made from a solid wire of round cross-section and recorded as being from County Clare which is now in the Israel Museum, Jerusalem. The spiral is 3.3cm long and measures 0.6cm in diameter at the centre, narrowing towards each end (Israel Museum 435; Wt 5.30g).

There is also a ribbed ring in two fragments from Ballymacormick, Co. Down (NMI 1876:23), where three copper or copper-alloy wires have been covered by a thick gold foil to give the impression of a solid gold ring. The gold has been pressed into the gaps between the wires in order to develop a groove or recess of the type that is seen on the solid ribbed rings. Another type of false wire ribbed ring has also

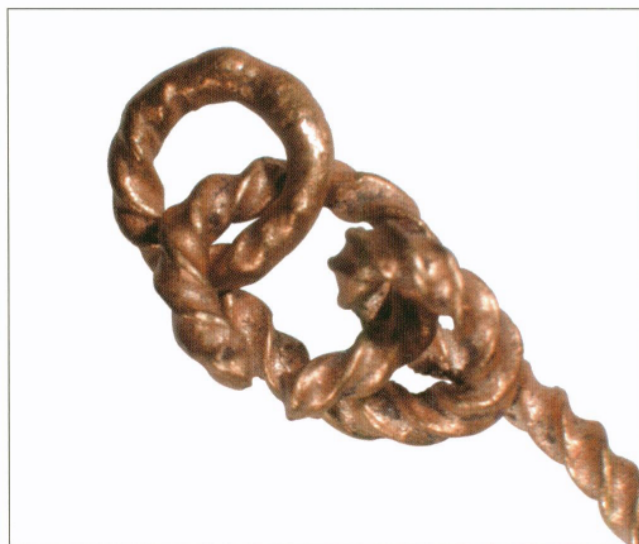
been produced in sheet gold that is worked up to give the impression of a series of wires. Examples of these sheet-formed ribbed rings are known from Skelly, Co. Tyrone (NMI 1913:35; for illustrations see Taylor 1980, pl. 39), where two were found threaded onto a small, thin, triangular bar-twisted torc. In making the sheet-gold version of the ribbed rings the goldsmiths attempted to produce the same visual effect by allowing a gap between the ribs. This torc is one of a number that might be described as being made from hammered thick wires, or alternatively of very thin bars of varying sections. In this paper I have not included any discussion of bar-twisted earrings because of doubts about their origins. Many have been recorded as being from Ireland and many of them could be described as being made from square or rectangular wires or thin bars (see Cahill 2005b for further discussion of these objects).

Amongst the large group of solid and foil-covered penannular rings (of the type often referred to by the redundant term 'ring-money' but which are probably objects of personal adornment for the hair and body) is a subgroup embellished by the addition of silver-coloured stripes of varying widths. A number of these rings, including many from Ireland, have been examined and analysed by Meeks *et al.* (2008, 17–23). This study has shown that the stripe is flat wire made from a silver-rich gold alloy. The wire has been wound circumferentially around the bar before the ring was formed and fused to the surface of the underlying gold. Meeks *et al.* (2008, 20) describe the rings inlaid with the thinnest, finest wires as 'quality rings' that required careful

and detailed manufacture. The thickness of the wire used in one of the rings (BM 1847:11-26.4) has been estimated at 0.2mm. The average silver content of the alloy used to make the stripes is 49%, which means that either a natural source of gold with an exceptionally high silver content was being used or that silver metal was added to the gold. Meeks *et al.* have also identified some of the base metal cores of the foil-covered rings as a lead/tin alloy. Lead is added to bronze and copper is added to the natural gold alloy during this period. There is no other known use of silver in Ireland during the Bronze Age. No Irish gold source has been identified so far with such a high silver content. This raises interesting questions about the source of the metal; e.g. if silver was added to the gold, where did it come from and how was it sourced? This might suggest that silver could have been procured as a by-product of producing lead.

The gold wires from Rathgall

Barry Raftery (1976, 345–6; forthcoming) describes the excavation of a large timber building just outside the ditch of the inner enclosure of the hillfort at Rathgall, Co. Wicklow. Because of the large number of clay mould fragments and other metal-working evidence, Raftery has described this area as a workshop or smithy where metal-working activity was conducted on a large scale. Also found in the vicinity of the workshop were four gold objects, two of which are of interest here. These were a short length of twisted gold wire and a composite bead of glass, gold mounts and gold wire (NMI E84:6950 and 6700). The twisted piece of wire is little more than a scrap, being *c.* 1.8cm in length and 0.95mm in diameter and of triangular cross-section. It was extremely well made using the block-twisting technique and very evenly twisted (Pl. 4). This shows the skill of the wire-maker, as in order to keep the twist regular along its length great care has to be taken to keep the pressure on the wire even throughout the twisting process. One end has been turned back to form a loop through which two tiny twisted rings (3.5mm and 4.3mm in diameter) have been threaded. These rings were made from small pieces of wire cut from the longer piece. One is an open ring while the second is closed. The closed ring shows clear signs of having been heated in order to join the two ends, and as a result the angles of the wire have been softened, although the twist can still be seen. These wires were probably part of a goldsmith's stock or leftover scraps, as they are not ornaments in

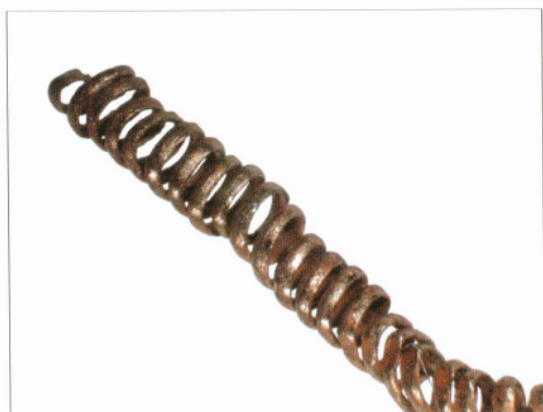


Pl. 4—Gold block-twisted wire from Rathgall, Co. Wicklow; detail showing wire and wire rings (© NMI).

themselves. The twisted wire is the type used for both decorative and functional purposes, which are discussed further below. There are other examples from Ireland of scrap twisted wire. Two short lengths of twisted gold wire were found with ten biconical gold beads in a bog near Malin, Co. Donegal (NMI 1885:175–184, beads; 1885:185–6, wire). The wires are not long enough to suggest that the beads might have been strung on wire. It is of interest, however, to note that a biconical gold bead was also found at Rathgall (NMI E84:6384), which may assist in dating this type of bead.

A rare combination of twisted gold wires and amber can be seen in the complex bead from Milmorane, Co. Cork (NMI 1944:225–6). In this case, the space created between the bead perforation and a cylindrical mount of sheet gold is filled, at each end, by four block-twisted gold wires, which are arranged in pairs. The twists face in opposite directions, thus achieving a herring-bone effect. Similar patterns, which, perhaps, mimic original wire compositions, can also be seen in late Bronze Age sheet gold where punched patterns produce a false wire herring-bone pattern, e.g. the ear-spools from Ballinesker, Co. Wexford (Cahill 2001; NMI 1990:65, 66).

The composite bead from Rathgall was made by mounting a glass bead on a cylinder of sheet gold and adding a gold ring at either end (B. Raftery 1976, 346, pl. II, 5a, b). At the extremities of the cylinder a length of coiled



A



B

Pl. 5—Gold D-sectioned wire from the gold-mounted glass bead from Rathgall, Co. Wicklow: (A) the coiled wire; (B) the uncoiled wire (© NMI).

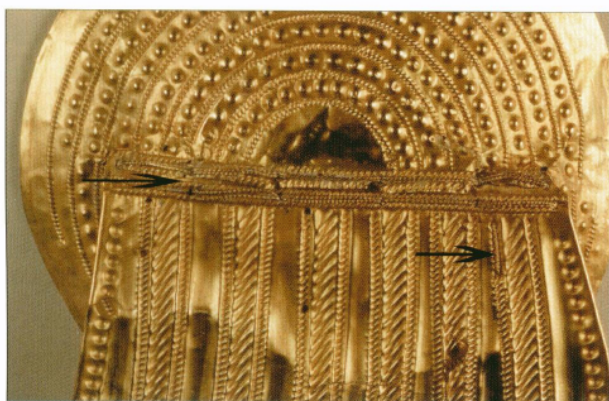
D-sectioned wire has been fixed in place in order to provide a decorative embellishment. This wire is both extremely thin and very tightly coiled (Pl. 5A–B). Although similar to the wire used in the Derrinboy necklet, it is much thinner and lighter, measuring just 0.16mm in width and 0.5mm in thickness (B. Raftery, forthcoming). Rathgall is one of a small number of excavated sites in Ireland to have produced gold artefacts *in situ*. Although there is considerable evidence for metal-working on the site, this suggests that bronze-working was undertaken, and the evidence is insufficient to suggest that there was also a goldsmith working there.

Gold wire stitching and filigree

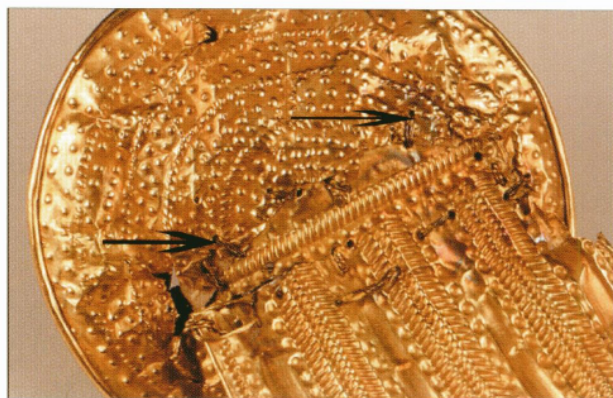
In the later stages of the late Bronze Age in Ireland a resurgence in the production of objects made from sheet gold gave goldsmiths the opportunity to use gold wire in ways that had not been seen before. Three types of wire can be recognised—rolled round wire, block-twisted wire and strip-twisted wire. One of the most important innovations was the use of gold wire to stitch together elements of the composite collars known as gorgets. Not including the gold wire stitches themselves, these complex pieces may contain up to nine component parts—the collar, two upper discs, two lower discs (each pair forming a terminal), two binding strips for the terminals and two reinforcing wires. In order to assemble the gorget, the collar is brought from the back of the lower terminal disc through a slit cut across the disc at approximately the mid-point. The two pieces are then sewn

together using a number of single stitches that are similar to tacking stitches. Tacking stitches are used in sewing for starting off a seam with a few stitches back and forth to stabilise the seam. Stitches can be positioned across the terminal or at approximately right angles to the terminal. With the exception of the gorget from Gorteenreagh, Co. Clare (NMI 1948:320–325), which seems to have been stitched together using round hammered wires (Pl. 1A), the wire used is a fine block-twisted wire. Only one small piece of wire remains *in situ* in one of the lower terminal discs, although two other long strips of plain wire exist in addition to the wires used to reinforce the edges of the collar.

One case in particular deserves more detailed description. In planning the scheme of decoration for the lower discs on the gorget from Gleninsheen, Co. Clare (NMI 1934:85), the goldsmith went to exceptional trouble to raise a pattern of false wire stitches on both ends of the upper part of the collar and across the surface of the lower terminal discs above the slit through which the collar was to be fitted (Pl. 6A). This pattern of four lines of mock stitching was designed to allow for two rows of twisted wire stitches to fall between the rows of mock stitches so that, when complete, the wire stitches became part of the overall pattern and, essentially, faded from view. This is an exceptional level of detail and planning for a section of the completed gorget which could not be seen when it was being worn. It is in contrast to a number of more carelessly finished gorgets, such as the one from Borrisnoe, Co. Tipperary (NMI W17), where a relatively slapdash approach was taken to the decoration of the lower terminal discs (Pl. 6B).



A



B

Pl. 6—Gold block-twisted wires from gorgets. (A) Gold wire stitching used on the gorget from Gleninsheen, Co. Clare. (B) Gold wire stitching used on the gorget from Borrisnoe, Co. Tipperary (© NMI).

Gold wire was also used to provide reinforcement to the raw edges of gorgets by rolling the inner and outer edges of the collar outwards over a wire. For the most part these wires are not visible except where a tear in the edge exposes the end of the wire. In the case of the gorget from Gorteenreagh, Co. Clare, the terminals seem to have been ripped from the collar, tearing the lower discs and the inner edge of the collar on one side and exposing the thick round wire used to reinforce the edges. Even where the wires are not exposed, however, there is evidence of their presence in the form of impressions on the surface of the rolled edge. These impressions show clearly that, except for Gorteenreagh, block-twisted wire has been used. Examples include the gorgets from Gleninsheen, Co. Clare, Ballycotton, Co. Cork (BM 1871.4-1.14), Toryhill, Co. Limerick (NMI W18), Shannongrove, Co. Limerick (V&A M1948:37), and Ardcroney, Co. Tipperary (NMI W16). Uniquely, the inner and outer edges of the gorget from Borrisnoe, Co. Tipperary, have actually been impressed with a single row of motifs which mimics a twisted wire. Although it is clear that wires are present within the rolled edges, the type of wire used in this case is not identifiable, as it is not visible. Simulated twisted wire is also a common feature of the decoration of some upper terminal discs where the visual impression of single strands of twisted wire is reproduced by punching.

Block-twisted gold wire of triangular section is also used as a type of filigree embellishment on some of the objects known as purse- or heart-shaped bullae. This very small group of objects has been described and discussed by Eogan (1998). They have been called individually 'bulla' because

antiquarians saw in them a resemblance to the classical bullae so well known from the Mediterranean world. The purpose of a bulla was to contain objects or written formulae or spells that would protect the wearer from disease or evil. Only seven survive from Ireland, the best known of which is the one from the Bog of Allen, Co. Kildare (NMI W345). It is by far the largest and, although clearly in the same tradition as the others, it is much bigger. Of the remaining six, three stand out because of the addition of gold wire filigree, which forms a decorative embellishment that effectively outlines the body of the bulla and the horizontal tubular aperture through which they can be strung. Two of these three filigree-decorated bullae are discussed here. These are the bulla from a hoard from the Arboe/Killycolpy area, Co. Tyrone, and one from a hoard from Kinnegoe, Co. Armagh (Pls 7 and 8). (See also Cahill 2002, 115, for plates showing the front and back of the bullae in the NMI. Please note that the caption to the plate is incorrect. The correct order from left to right is: Bog of Allen, Co. Kildare; River Bann, Co. Antrim; Arboe/Killycolpy, Co. Tyrone; Kinnegoe, Co. Armagh; no locality, Ireland.) Recently a new bulla has been found at Inch, Co. Down. It is remarkable for its close similarity in both form and decoration to the bulla from Arboe/Killycolpy. The new bulla is in the collection of the Ulster Museum, Belfast.

The Arboe/Killycolpy bulla is complete but quite damaged (Pl. 7). It is 3.28cm in maximum length. It was made from a piece of sheet gold, shaped somewhat like a double D, which has been folded over at the centre to form the suspension tube, with the body of the bulla formed by

the convexities of the D-shapes. This was kept in shape by the insertion of a baked clay core, as otherwise the bulla could be easily compressed. The front of the bulla was decorated with seven groups of incised concentric circles, with a punched hole at the centre of each. The back of the bulla has been left plain and undecorated. When newly made the object would have looked like an immensely accomplished piece of gold-working.

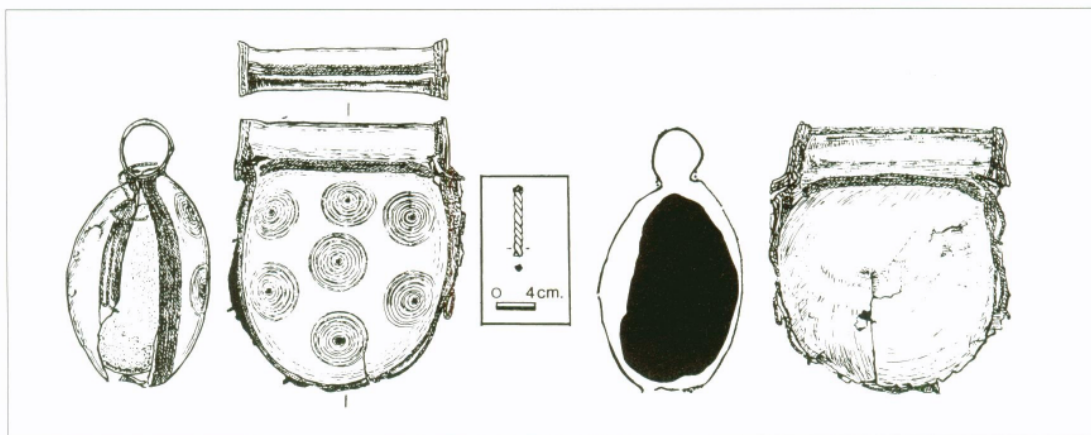
Owing to the damage that the object has suffered—the bulla has been torn apart and is completely open—it is not at all clear how the edges below the tube were held together. There is no evidence of soldering or fusing, but what is clear is that, when finished, the join would have been completely obscured by the applied gold filigree panel. Six separate applications of wires were required to decorate the bulla. The number of strands applied varies from three to eleven. Three sets of three strands were used to decorate the suspension tube along its length, one at the top and, on both sides, where it meets the body of the bulla (Pl. 7A, B). The rims of the tube were rolled back to give a more finished appearance. Two sets of three wires were then applied to trim the openings of the tube (Pl. 7B, C). Around the edge of the sheet that forms the body, the surface has been depressed in order that the panel of filigree, formed by the application of eleven strands of wire, was flush with the surface of the bulla (Pl. 7D). The method by which the wires were secured was simply to bring them from front to back through small holes punched in the sheet (Pl. 7B). The ends were then folded back against the inner surface of the sheet. No knots or other means of securing the wires have been observed. The wires used are very fine but show a lot of unevenness in terms of width and degree of twist (Pl. 7C). Some wear is also visible, particularly on the ends of the strands that run across the top of the tube. This can only be seen with magnification, however, and does not impinge on the overall effect of the filigree.

The second filigree-decorated bulla is the one from the hoard found at Kinnegoe, Co. Armagh (Pl. 8; Eogan 1983, 60–1). It is smaller than that from Arboe/Killycolpy, being only 2.54cm in length, and the shape is more purse-like. It is quite badly compressed, suggesting that it was originally hollow. It is also open at the top but not torn, suggesting that two halves were joined along the top and the sides, leaving a horizontal aperture to form the suspension tube. The remnants of twisted gold wire can be seen under the rims on each side of the original top seam. The filigree was applied according to the same scheme used in the Arboe/Killycolpy

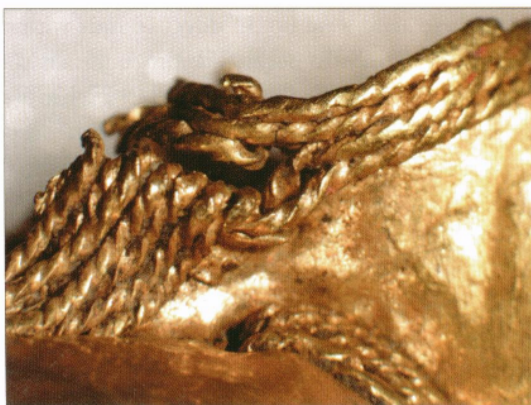
example, i.e. the body of the bulla, the suspension tube and its rims. It has suffered some losses around the rims and along the uppermost section of the tube but, around the sides, the wires remain intact, with ten rows of wire used. Again the wires are applied in a recess that brings them flush with the body of the bulla (Pl. 8E). Unlike the previous example, however, neither face of the bulla is decorated. It is also notable that the wires are much more worn in appearance, especially those outlining both sides of the tube (Pl. 8B, C, D). In fact these wires are worn almost completely flat and the twist in the wire is visible only at the extremities of the wires, where they have not come into contact with the body when the bulla was worn (Pl. 8C). As there is no clear front or back to this bulla, both faces show similar wear. While there is some evidence of wear on the wires that outline the body of the bulla, these are much less worn, reflecting the fact that these areas were not in direct contact with surfaces that would cause wear to occur. The tiny unlocalised bulla (NMI W264) has no applied decoration, but a series of dotted lines across the top of the body where it meets the suspension tube and around the sides of the bulla were probably intended to mimic applied wire.

There are no clear antecedents for these bullae in Ireland or Britain and the question of their origin has been raised especially by Eogan (1998, 20), who suggested that the Lyzel-type bronze pendants known from Belgium may be linked to them as their general shape and decoration is similar. It is difficult, however, not to be struck by the resemblances between the Irish bullae and some from the Mediterranean area, and perhaps both the Irish and the Lyzel pendants are local responses to the Mediterranean types. Nicolini (1990, 392–8; images in vol. 2, pls 100, 101, 104, 120–4) illustrates and describes a number of examples from the southern area of Iberia which, superficially at least, resemble the Irish bullae in quite a number of significant ways—the use of single sheets of gold to form the bulla (examples made from two pieces are also known); the purse shape; the suspension tube; decoration on one face while the other is blank; and the use of twisted wire filigree and false filigree to decorate the outer edges. Nicolini (1990, vol. 1, 392) refers to these objects as U-shaped pendants (*pendentifs en U*) or U-shaped amulet-carriers (*porte-amulette en U*) and also as bullae (*bulles*), for example when they are strung on necklaces (*colliers à bulles*). He also states that the origin of these two subtypes is difficult to determine.

Some Iberian bullae are of more complex construction as the suspension tube is separate and can be removed in



A



B

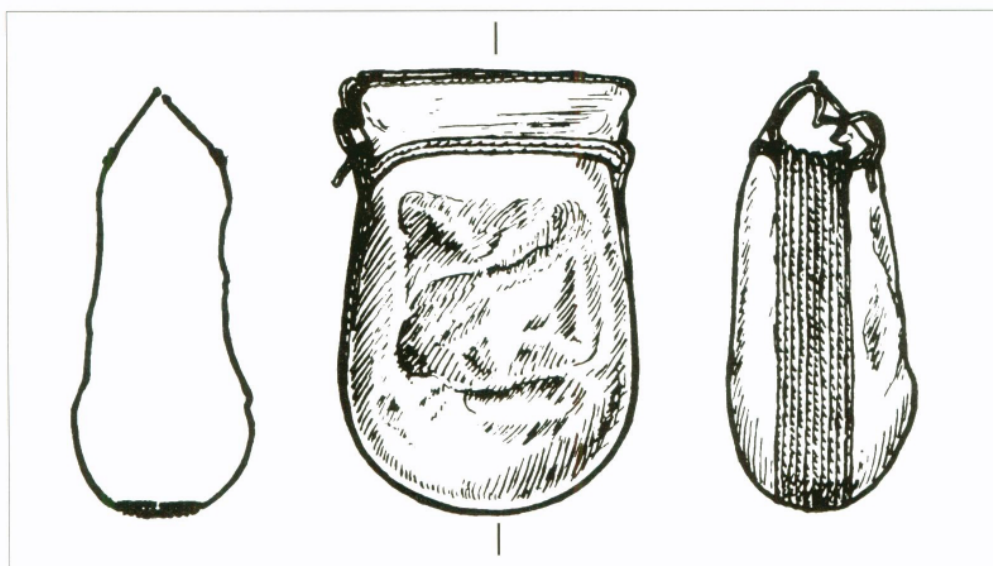


C



D

Pl. 7—The bulla from Arboe/Killycolpy, Co Tyrone. (A) Drawing of the complete object and its core. (B) Detail of the junction of the tube and the body of the bulla, showing how the ends of the wires are inserted through holes in the sheet. (C) Detail of the wires outlining the suspension tube and the body of the bulla. (D) Detail of the panel of gold wire filigree that covers the join of the body and follows the outer rim of the bulla (© NMI).



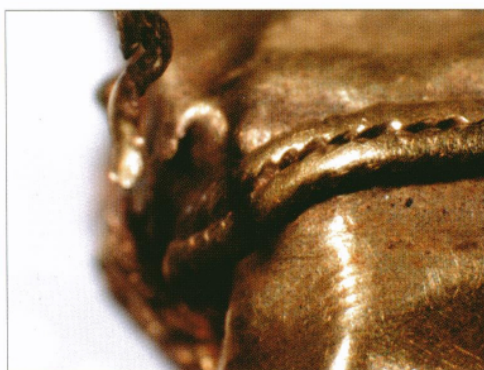
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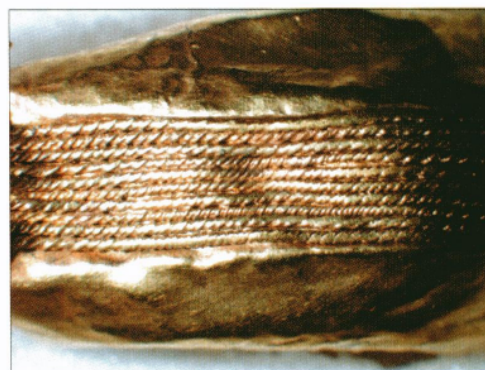
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D



E

Pl. 8—The bulla from Kinnegoe, Co. Armagh. (A) Drawing of the complete object. (B) Detail showing how the block-twisted wires have been worn flat. (C) Detail showing worn and unworn wires. (D) Detail showing the wires outlining the lower edge of the suspension tube turned inwards to secure them. (E) Detail of the panel of gold wire filigree that covers the join of the body and follows the outer rim of the bulla (© NMI).

order to facilitate access to the interior of the bulla, which was intended to contain either substances or pieces of paper on which special formulae were written to protect the wearer. Nicolini (1990, vol. 1, 436) concludes that the type is likely to be of peninsular origin, having regard to the numbers that exist (at least 27 from Iberia, with only six known from the Mediterranean area, including Carthage). Chronologically, he places the series in the early centuries of the sixth century BC. With regard to Ireland, for now no definitive answer can be given, as there are problems of chronology and contacts to be overcome. In the opinion of some scholars, however, the dates for the Iberian material need to be revised in view of growing evidence that the Phoenicians may have settled in Spain earlier than traditionally believed (Alicia Perea, pers. comm.). It may also be noted in this context that Redmond Anthony's collection of gold objects contained a bulla of classical type said to have been found in Ireland. The body is made of twisted wire with added granulation (BM 1849.3-1.29). This bulla is of Etruscan rather than Iberian type.

Strip-twisted wire

These issues of origin and influence were raised by George Eogan (1969) in his paper on gold 'lock-rings'. These exquisite biconical objects are composed, in the case of the Irish corpus, of strip-twisted gold wire, held together by sheet-gold tubes and binding strips. What chiefly concerns us in this paper is the use of wire as the main component of these complex objects. The face-plates, i.e. the two parts

which together make up the biconical element of the finished piece, are made by building wire upon wire (Pl. 9). The wires in themselves are extremely fine and bear all the evidence of strip-twisting, which, as described above, involves twisting strips of gold foil around a wire, removing the support and stretching the hollow tube. It has also been suggested that these wires may have been finished by pulling them through a series of dies.

The manner of joining so many fine wires has also been mentioned, with some authors suggesting that the wires have been soldered, fused or sweated together. Given the extreme fineness of the wires used, solder would have been difficult to control and might have flooded the construction. An alternative method may have been the use of a resin or glue, which, having been 'painted' onto the surface of the wires, was then heated to the point where the resin ran into the spaces between the wires, causing them to fuse together. Under magnification it can be clearly seen that there are no spaces between the wires, but the wires remain visible almost as ribs with grooves between them (Pl. 9B). Some British lock-rings use face-plates that have been incised with fine concentric lines, which produce much the same effect from a visual point of view. Others may be plain or use other forms of decoration (see Eogan 1969 for details), although a few wire-formed examples have been found. La Niece and Cartwright (2009) discuss the use of cores of beeswax and wood in the manufacture of British lock-rings and also comment on the use of strip-twisted wire. The very flattened appearance of the underside of the wire-formed cones (Pl. 9) suggests the use of a form on



A

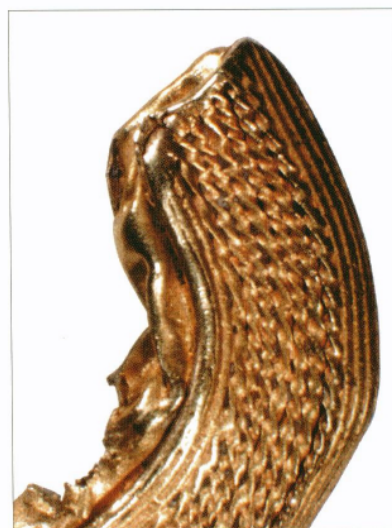


B

Pl. 9—Gold lock-ring formed from strip-twisted wire (no locality, Ireland; NMI W 000): (A) the outer surface of the lock-ring; (B) part of the same surface under magnification (© NMI).



A



B



C



D

Pl. 10—Gold earring (?) formed from block-twisted wire from Rathfarnham, Co. Dublin. (A) The complete object. (B) Detail of the seven wires on one face and the grooved sheet-gold frame. (C) Detail of the eight wires on the other face and the grooved sheet-gold frame. (© NMI) (D) A block-twisted gold wire *arracada* with its pendant of granulation from O Irixo (Ourense), Spain (after Nicolini).

which to make the cones and, perhaps, to provide internal support to prevent them from being squashed subsequently (e.g. like the bullae described above). Clearly, those made from wire are technically much more difficult and time-consuming to make. This body of material also constitutes the only known use of strip-twisted wire in Ireland during the Bronze Age.

Eogan (1969, 98–100) mentions the possibility that the inspiration for working with wire in this way came from the eastern Mediterranean, and that the orientalising influences that reached the far west of Iberia may have contributed in some way to developments in gold-working in Ireland, as wire is such a dominant feature of Iberian goldwork. Eogan also considers the use of twisted gold wire on the bulla from Kinnegoe as a possible result of these influences and, in the same context, mentions the small object said to be from the River Dodder at Rathfarnham, Co. Dublin (NMI W51; wt 1.3g), which has been classed as a lock-ring. It differs greatly from all other Irish lock-rings, however, because it is so small and because, rather than being made of strip-twisted wire, it is made from block-twisted wire of the type that has been described in relation to the bullae (Pl. 10A–C). The object is very compressed and it is not clear precisely what form it had originally. Each side is composed of strands of twisted gold wire (eight on one side and seven on the other), which are fixed to an outer and inner frame of sheet gold, both of which are grooved. Around the inner edge a torn and folded strip of sheet gold has been forced out by the compression of the object. It is possible that it was originally triangular in cross-section.

In looking for comparanda for this object one is struck by a certain similarity between the object from Rathfarnham and the Iberian ear-ornaments known as *arracadas*. These earrings, which take the general shape of a crescent, come in a variety of forms (Perez Outeriño 1982; 1989). Some are extremely elaborate, with triangular pendant elements that may incorporate complex patterns in wire and granulation. Others are simpler and consist of a crescentic body made up of twisted gold wires set in a frame with the addition, at the lower part of the frame, of triangular attachments of granulation (Pl. 10D). They can be worn in the ears by means of wire posts or, in the more elaborate examples, by means of chains suspended from the top of the ear.

The distribution of the type of *arracada* closest to the Rathfarnham object is largely confined to the north-west corner of the Iberian peninsula, with the examples from O

Irixo (Ourense) and Cances (Carballo, La Coruña) being the most comparable. These belong to the type called 'Morfotipo II' (Perez Outeriño 1982; 1989, 100–1), which are characterised by a penannular or crescentic (*penalunar*) body made from twisted wire contained within a frame (Pl. 10D; Nicolini 1990, vol. 2, pl. 14). The example from Cances was found just inland on the north-west coast of Galicia, while the O Irixo *arracada* was found a little further south, a short distance from the west coast of Galicia. A third example of this type was found in the excavation of a *castro* at A Graña, Toques, La Coruña, and is dated to the third to second century BC (Balseiro Garcia *et al.* 1996, 111). The inspiration for the Galician series is seen as coming from the southern parts of the Iberian peninsula, and in the opinion of Nicolini (1990, vol. 1, 252) they date from after the sixth century BC. Perhaps the object from Rathfarnham is an Irish version of an Iberian *arracada* and, as such, of Iron Age rather than Bronze Age date.

Conclusion

This paper may serve as a preliminary step in initiating a more complete study of the gold wire used in Ireland in the Bronze Age—one that would include the type of archaeo-metallurgical studies recommended by Andrew Oddy. It puts the wire from the excavations at Rathgall into a broader archaeological context, showing that the use of gold wire is more common and much more complex than might have been realised heretofore.

Acknowledgements

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References

- Anderson, J. 1886 *Scotland in pagan times: the Bronze and Stone Ages*. Edinburgh. David Douglas.
- Armstrong, E.C.R. 1920 *Catalogue of Irish gold ornaments in the collection of the Royal Irish Academy*. Dublin. The Stationery Office.
- Balseiro Garcia, A., Perez Outeriño, B. and Ruiz-Galvez Priego, M. 1996 *El oro y la orfebrería prehistórica de Galicia*. Lugo. Diputación Provincial Lugo.
- Cahill, M. 2001 Unspooling the mystery. *Archaeology Ireland* 15 (3), 8–15.
- Cahill, M. 2002 Before the Celts: treasures in gold and bronze. In P. F. Wallace and R. Ó Floinn (eds), *Treasures of the National Museum of Ireland*, 86–124. Dublin. Gill and Macmillan.
- Cahill, M. 2005a Roll your own lunula. In T. Condit and C. Corlett (eds), *Above and beyond: essays in memory of Leo Swan*, 53–62. Bray. Wordwell.
- Cahill, M. 2005b The strange case of the Strangford Lough hoard. *Journal of the Royal Society of Antiquaries of Ireland* 135, 5–118.
- Cahill, M. 2006 John Windle's golden legacy—prehistoric and later gold ornaments from Co. Cork and Co. Waterford. *Proceedings of the Royal Irish Academy* 106C, 219–337.
- Éluère, C. 1982 *Les ors préhistoriques—l'âge du bronze en France-2*. Paris. Picard.
- Eogan, G. 1969 Lock-rings of the Late Bronze Age. *Proceedings of the Royal Irish Academy* 67C, 93–148.
- Eogan, G. 1983 *Hoard of the Irish Late Bronze Age*. University College Dublin.
- Eogan, G. 1998 Heart-shaped bullae of the Irish Late Bronze Age. In M. Ryan (ed.), *Irish antiquities—essays in memory of Joseph Raftery*, 17–26. Bray. Wordwell.
- La Niece, S. and Cartwright, C. 2009 Bronze Age gold lock-rings with cores of wax and wood. In T. K. Kienlin and B. W. Roberts (eds), *Metals and societies. Studies in honour of Barbara S. Ottaway. Universitätsforschungen zur prähistorischen Archäologie*, 307–12. Bonn. Habelt.
- Mallory, J.P. 1995 Haughey's Fort and the Navan complex in the Late Bronze Age. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age—proceedings of the Dublin conference, April 1995*, 73–86. Dublin. The Stationery Office.
- Meeks, N., Craddock, P. and Needham, S. 2008 Bronze Age penannular gold rings from the British Isles: technology and composition. *Jewellery Studies* 11, 13–30.
- Nicolini, G. 1990 *Techniques des ors antiques: la bijouterie Ibérique du VII^e au IV^e siècle* (2 vols). Paris. Picard.
- Oddy, A. 1977 The production of gold wire in antiquity. *Gold Bulletin* 10, 79–87.
- Oddy, W.A. 1979 Hand-made wire in antiquity. *MASCA Journal* 1 (2), 44–5.
- Oddy, W.A. 1980 Swaged wire from the Bronze Age? *MASCA Journal* 2 (4), 110–11.
- Oddy, W.A. 1983 Ancient jewellery as a source of technological information—a study of techniques for making wire. In A. T. Balazsy (ed.), *Proceedings of the 4th International Restorer Seminar*, 241–52. Veszprém. National Centre of Museums.
- Oddy, W.A. 1987 Does 'strip-drawn' wire exist from antiquity? *MASCA Journal* 4 (4), 175–7.
- Perez Outeriño, B. 1982 *De ourivesaria castexa 1. Arracadas*. Boletín Avriense Anexo 1. Ourense. Grupo Marcelo Macías/Museo Arqueológico Provincial.
- Perez Outeriño, B. 1989 Orfebrería castreña. In R. Tauler Fesser (ed.), *El oro en la España prerromana*, 90–107. Madrid. Zugarto Ediciones.
- Raftery, B. 1976 Rathgall and Irish hillfort problems. In D. W. Harding (ed.), *Hillforts. Later prehistoric earthworks in Britain and Ireland*, 339–57. London. Academic Press.
- Raftery, B. (forthcoming) The excavations at Rathgall, Co. Wicklow.
- Raftery, J. 1961 The Derrinboy hoard, Co. Offaly. *Journal of the Royal Society of Antiquaries* 91, 55–8.
- Taylor, J.J. 1980 *Bronze Age goldwork of the British Isles*. Cambridge University Press.
- Whitfield, N. 1990 Round wire in the early Middle Ages. *Jewellery Studies* 4, 13–28.
- Wigley, T.B. 1898 *The art of the goldsmith and jeweller: a treatise on the manipulation of gold in the various processes of goldsmith's work, and the manufacture of personal ornaments etc., etc.* London. Charles Griffin & Co.

The small metal tools of the Irish Bronze Age: an outline review

George Eogan

Introduction

Tools can be defined as work instruments and have been widely used, geographically but also chronologically, by diverse societies since the dawn of prehistory; they were probably the most essential artefact created by man. This is particularly true for the Irish Bronze Age, when a variety of types were in use, notably during the latter part of the period. As Grahame Clark (1952, 212) has written, however, 'so long as the craftsman had to make do with tools of flint or stone, his mastery over wood was limited'. As will be demonstrated, that changed during the Bronze Age, particularly as gouges and chisels enabled craftsmen to produce refined wooden objects such as small containers, but also larger items such as wooden moulds for the manufacture of leather shields. Tools, especially hammers and punches (Hundt 1975), were also essential in the production and finishing of metal objects in both bronze and gold—large objects like sheet-bronze buckets and cauldrons, and small objects, e.g. gold artefacts, such as lunulae at the beginning of the Bronze Age and the gorgets at the end (cf. Eogan 1964, 299–300, 302–6; Eogan 1994). Throughout, the most prominent and heaviest type of tool consisted of different forms of axeheads (Fig. 1). In general terms the flat and flanged varieties were features of the early Bronze Age; in 1969 Harbison recorded almost 2,000 examples (Harbison 1969a). Palstaves and related axes emerged during what may be termed the middle Bronze Age, while during the later Bronze Age the socketed variety developed, the latter being the most widely used type, with close to 2,000 examples recorded (Eogan 2000). Axes, being large tools, were predominantly used for heavy work, but they may also have functioned as specialist tools in the making of specific features such as mortices. A number of axes also possess art, which is usually considered a form of embellishment; it would not be necessary, however, if they only acted as a tool, suggesting that they may have had a wider function. Perhaps art served as a mark of ownership or a signature of authority, an indicator of status, a form of identification or a means of highlighting an aspect of individualism.

In Ireland, the use of tools goes back to the initiation of settlement during the Mesolithic, but with the emergence of the Bronze Age a greater variety came into existence and metal was used in their manufacture. In Bronze Age studies metal objects loom large, but organic materials, notably leather, textiles and wood, also played a significant role. The utilisation of the latter materials, and in particular aspects of their manufacture and use, is most relevant to this study. As will be shown, small metal tools constitute a special group of artefacts that could have been used by specialists in the working and manufacturing of objects in organic materials, woodworking probably being the most prominent. During the early Bronze Age (c. 2300–1700 BC) the earliest axes and other artefacts were made from copper and were flat, but within that stage developments took place; initially the sides were modified by adding slight flanges, but continued modification resulted in making the flanges more pronounced. A further feature of the axes with pronounced flanges is the presence of art, largely geometric in form. The middle Bronze Age (c. sixteenth–fourteenth centuries) was a time of further change when palstaves emerged, including not only palstaves proper but also haft-flanged and wing-flanged axes, continuing the tradition of the earlier axes. In all, these varieties—palstaves proper and native modifications—number approximately 1,500 examples (Ramsey 1995). From that time onwards an entirely different type of axe was introduced, the socketed variety; this became the most favoured form and around 1,800 individual examples are known (Eogan 2000, 42–208). Throughout the Bronze Age axes would have been used for heavy work such as felling trees; for example, the late Bronze Age wooden shields from Annadale, Co. Longford, and Churchfield, Co. Mayo (Coles 1962, pls 24 (top) and 25), are from trees that measured about 50cm in diameter when felled and were then modified by working, resulting in trimming and dividing the trunk into usable sections. For the latter work different types of axes were used; in general these were small and, at least in the later part of the Bronze Age, a greater variety was present.

Special tools were needed in the working of wood, and therefore the study of the acquisition and working of wood

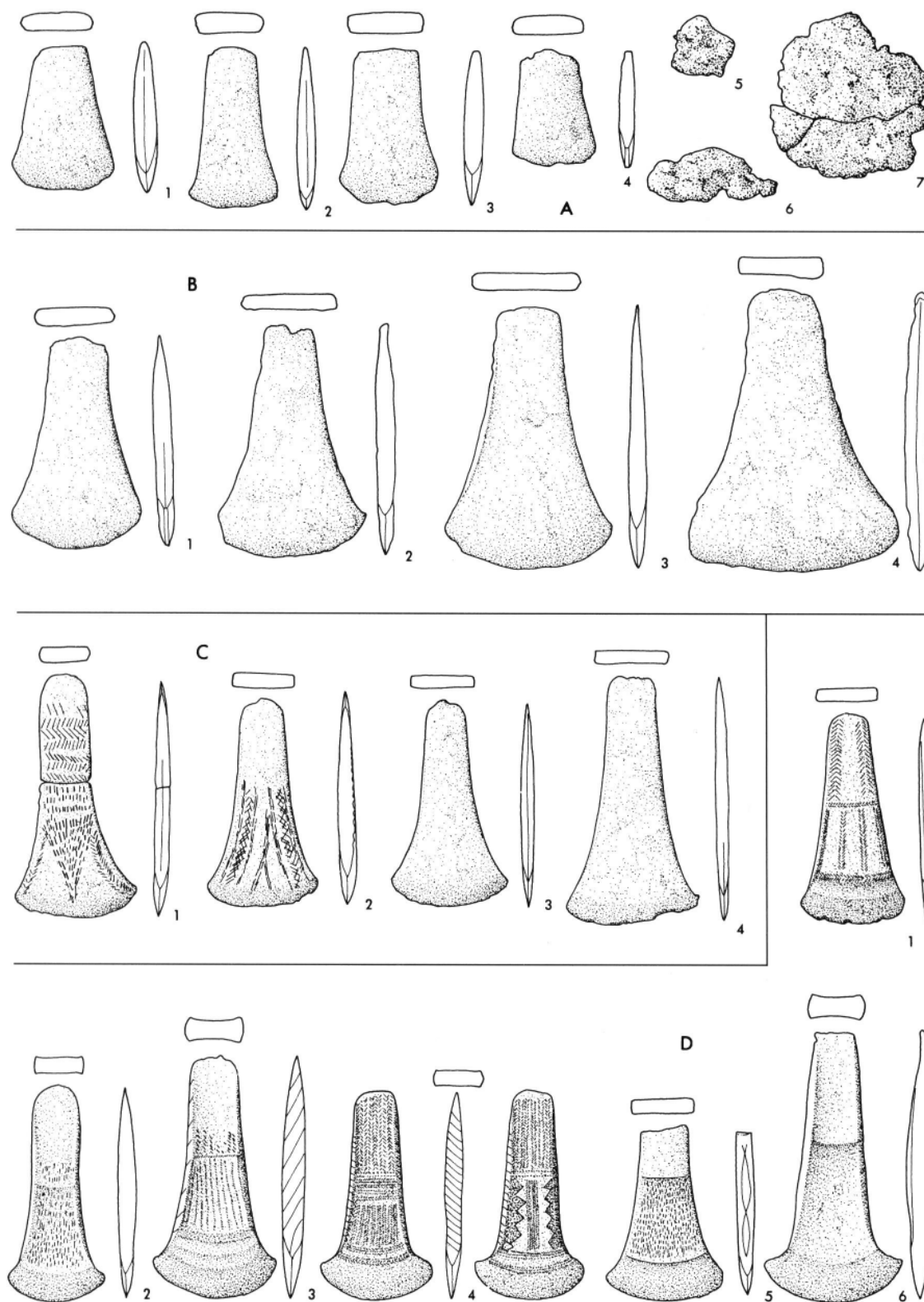


Fig. 1—Hoards of early Bronze Age axes (from Harbison 1969a, fig. 4). A: Carrickshedoge, Co. Wexford; B: Carhan, Co. Kerry; C: Ballyvalley, Co. Down; D: Scrabo Hill, Co. Down (probable hoard) (scale 1:3.5).

also required specialists; fortunately, Barry Raftery is such a person. As is well known, Barry's studies are wide-ranging and chronologically diverse, spanning phases not only of prehistory but also of history, while his specialist studies extend over more than one field. These include artefacts but also structures that vary in form and in the nature of the structural material utilised. A particularly important aspect of his work is his notable excavations at Rathgall, Co. Wicklow (B. Raftery 1976; 1994), a site that produced evidence for secular settlement but also for ritual activities and bronze artefact manufacture during the later Bronze Age. A particular structure at Rathgall which Barry studied in detail was the great circular structure, about 16m in external diameter; indeed, this was an initial stage in his woodwork studies, which subsequently underwent major expansion, particularly with his study of toghers and trackways found in bogs. Barry has since become a leading authority on woodworking and the utilisation of that raw material in early Ireland. This research involved detailed examination not only of tree-felling but also of the subsequent preparation and use of the wood. Significantly, he initiated a series of bogland studies, mainly in the central part of the country (B. Raftery 1990; 1996). As one of his collaborators, Aidan O'Sullivan (1996, 291), has stated, 'wood was the most widely available and intensely used raw material in prehistory . . . the technique of obtaining, converting and working it would have been a central part of people's daily and seasonal activities'. This research has led to extensive investigations in the boglands of central and western Ireland, as a result of which a wide range of features constructed from wood were discovered. This has amplified our understanding of important aspects of Irish archaeology. Not only did this work contribute to our knowledge of past social interaction, such as communication, but it also allowed Barry and his colleagues to investigate many aspects of woodworking, from the cutting down of trees and brushwood to the follow-up activities that involved the utilisation of the raw material obtained to create usable objects. All this necessitated the procurement and availability of a variety of timbers from different sizes of trees so as to produce everything from posts to large planks, as well as ancillary tasks such as trimming the fallen trees. The studies by Barry and his colleagues have illustrated that the use of bronze axes during the early Bronze Age led to changes in woodworking techniques: there was a greater range of cutting angles, predominantly flat, and the facets are larger than those

caused by Neolithic stone axes. This indicates an increase in woodworking efficiency (B. Raftery 1996, 314–16). As the artefacts discussed in this paper could largely have functioned as woodworking tools, it is my hope that it will make a small contribution to that aspect of archaeology that Barry has done so much to advance.

The earliest tools

The use of metal tools in Ireland goes back to the beginning of metal-using, the Beaker period, although at that time small metal tools were not in common usage. Evidence for such tools is provided by a hoard found in a bog at Knocknagur, Co. Galway, which consisted of seven copper objects—three flat axes, one tanged dagger and three straight-sided awls (Harbison 1969a, 7 and fig. 1A;¹ see Fig. 2A). Possibly of slightly later date is the cremation burial in a cist at Carrickinab, Co. Down, which was accompanied by a bowl food vessel, a poorly preserved bronze dagger, probably of the round-butt type, two flint round scrapers and a double-ended copper or bronze awl with central expansion (Collins and Evans 1968; Eogan 2003, 71; see Fig. 3). The awl can be assigned to Thomas's 1B type, which had a very long life that extended from Bell-Beaker times down to the period when urns were current (Thomas 1968). A matrix of a pointed implement on one of the late early-middle Bronze Age stone moulds from Omagh, Co. Tyrone (Eogan 1993, fig. 10.7, 3Ai), may also have cast an awl, while another of the Omagh moulds was intended for casting a non-socketed sickle (*ibid.*, 99, fig. 11G). For the early Bronze Age, large tools such as flat axeheads (Fig. 1) were the most common type in use, while small tools were limited both in form and numbers. Awls, which are double-ended, are the only definite example, the earliest forms being straight-sided (e.g. Knocknagur; Fig. 2A; also see Fig. 4), but later a central expansion became a feature, as on the Carrickinab specimen (Fig. 3, 2). It is possible that what are termed 'daggers' may also have been used as knives; indeed, that is the term used by Waddell (1998, 131–2) for tanged daggers, some of which are about 26cm in length and could have functioned as a weapon but also had a dual purpose as a tool. The range of non-pottery artefacts in the Carrickinab grave is also interesting; the vessel may have been intended to contain the cremated remains, but the associated grave-goods may throw some light on the occupation of the deceased. Awls can be accepted as leather-working

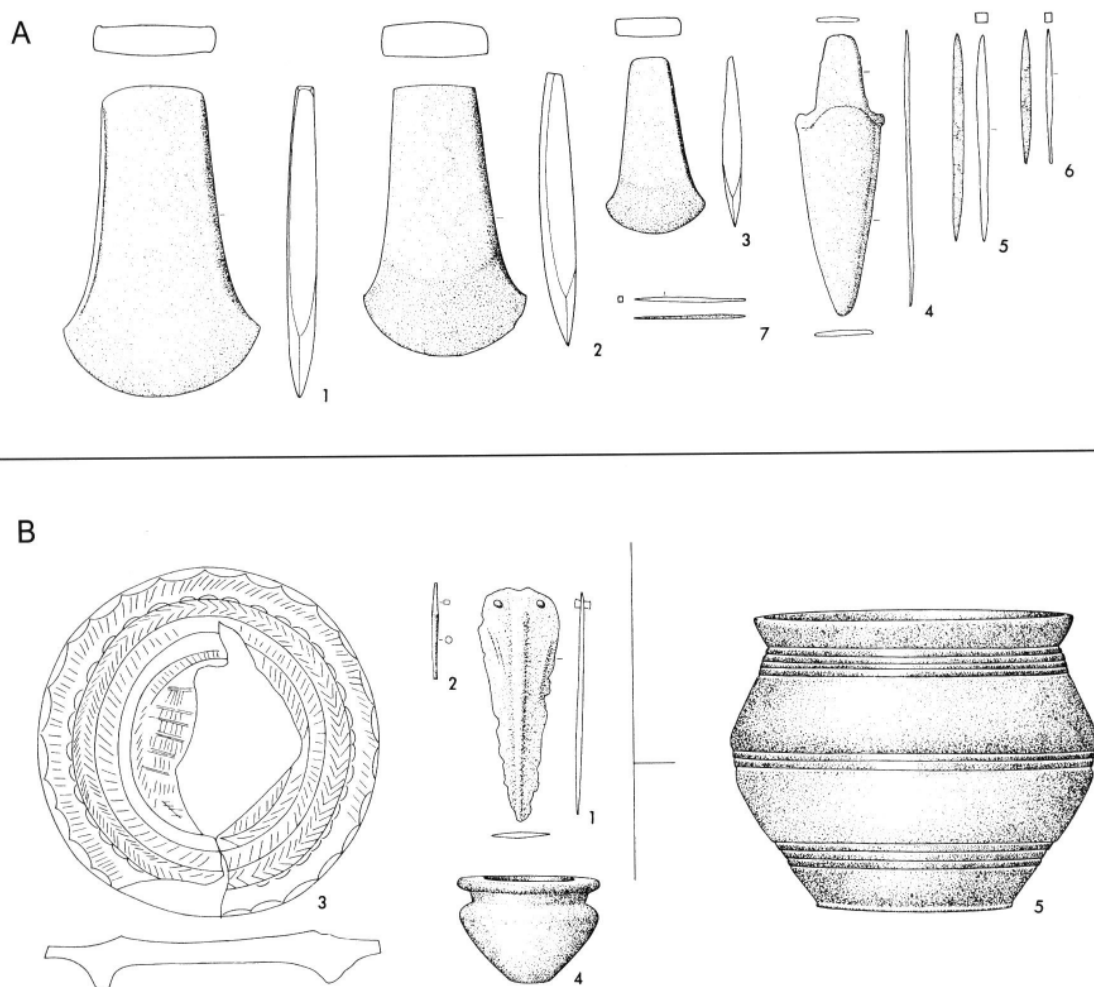


Fig. 2—A: Hoard from Knocknagur, Co. Galway. B: Grave-goods that accompanied an inhumation burial in a cist at Annaghkeen, Co. Galway (from Harbison 1969a, figs 1.A and 1.F) (scale 1:3.5).

implements, the flint scrapers could have been used in preparing animal skins for tanning, while the dagger (in this instance) could have functioned as a knife for trimming and cutting the leather. These tools could easily have been used to produce a cloak, footwear and/or a container such as a purse. Like other specialists, such as metal- and woodworkers, leather-workers may also have been esteemed individuals. Accordingly, this craftsman from Carrickinab was granted special status, not only by formal burial but by being interred in a pottery vessel which was placed within the security of a specially constructed cist and accompanied by the tools of his trade. Although less clear-cut, attention may also be drawn to the grave-goods accompanying an

inhumation burial, which was also in a cist, at Annaghkeen, Co. Galway (Harbison 1969b, 18, no. 119, fig. 1E; see Fig. 2B). This contained a double-ended awl with a central expansion, a dagger with a rounded riveted butt (possibly related to the Carrickinab example) and two associated pottery vessels which were somewhat unusual: the largest was lidded and the other was a pygmy vessel. It should also be noted that another associated item was a small quartz pebble (not illustrated in the publication) and, as was the case with the flints in the Carrickinab burial, this might also have served as a scraper. Without over-emphasising comparisons, perhaps it may be suggested that the Annaghkeen grave also contained the remains of another

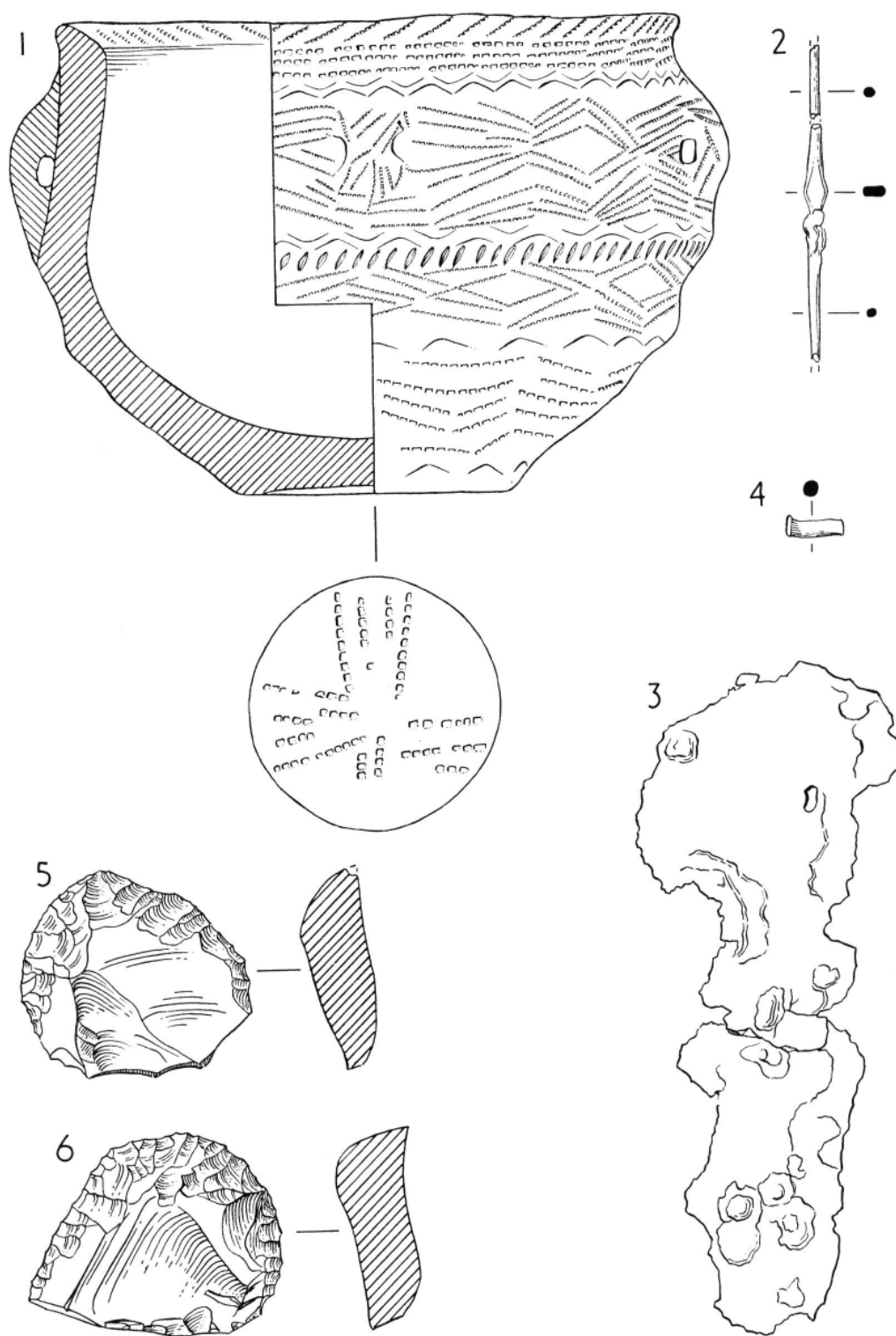


Fig. 3—Grave-goods from Carrickinab, Co. Down. 1: Food vessel; 2: awl; 3: bronze blade; 4: rivet; 5 and 6: flint scrapers (from Collins and Evans 1968, fig. 3) (scale—food vessel 1:2; other 1:1).

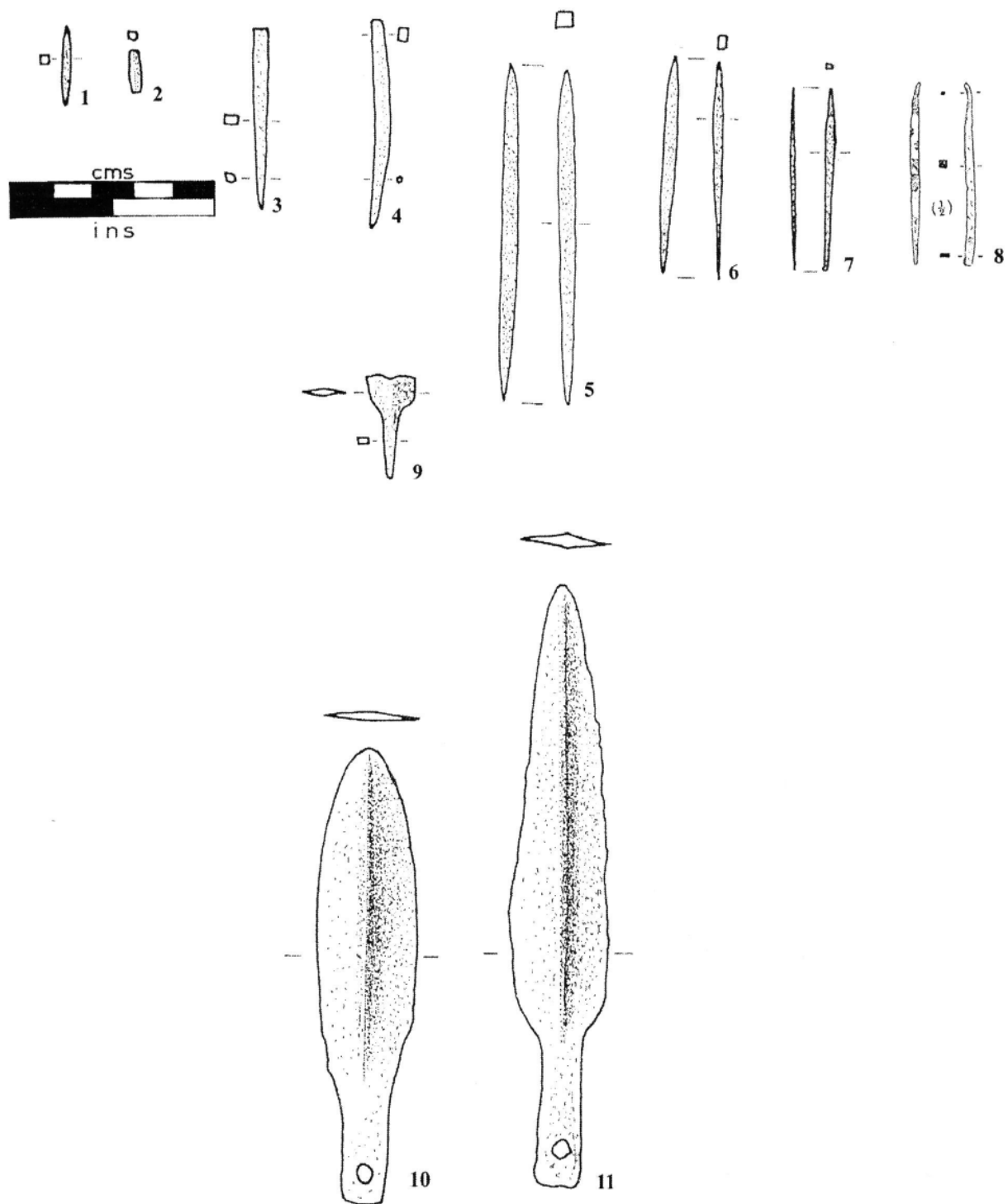


Fig. 4—Awls: 1–4: Lough Gur, Co. Limerick; 5–7: Knocknagur, Co. Galway; 8: Carrigillihy, Co. Cork (scale 2:3). Class I razors: 9: Largantea, Co. Derry; 10: provenance unknown; 11: Mullanalamphry, Co. Donegal (from Harbison 1967, fig. 3, and O’Kelly 1951, fig. 9).

leather-worker. Apart, however, from the sheath for a flanged axe of the Derryniggin type from Brockagh, Co. Kildare (Rynne 1961–3; Herity and Eogan 1977, 158, fig. 59), and a bark and leather sheath for a flat triangular dagger with a crouched adult male inhumation in a cist just outside Derry (McConway and Donnelly 2006), positive evidence for leather-working during the early and middle Bronze Age is limited.

On the surviving leaf of a double-piece stone mould from Inch Island, Co. Donegal, there is a matrix for casting the earliest form of socketed spearhead, while on the opposite side there is a matrix for casting a trunnion chisel. It is not possible to say whether they are contemporary (Coghlan and Raftery 1961, fig. 22; Eogan 1993, 107, fig. 9), but one of the Omagh moulds, which would be of approximately the same date, has a matrix for a chisel with a single trunnion. Those moulds also have matrices for casting plain chisels as well as awls, a tanged chisel and class I razors (Coghlan and Raftery 1961). The latter were now coming into use (Piggott 1946; Jockenhövel 1980; Kavanagh 1991; Binchy 1967; Harding 2008). Experiments have confirmed that razors (see Fig. 4) would have functioned as a shaving implement; furthermore, practically all the finds of small razors were grave-goods that accompanied the remains of adult males (Kavanagh 1991, 83). Despite their primary use for shaving, such items could also have had other functions.

Double-piece stone moulds that constitute the Killymaddy (Co. Antrim) group are of slightly later date owing to the presence of more developed artefacts, such as ribbed kite-shaped spearheads and class II rapiers, but seemingly class I razors were also being cast (Coghlan and Raftery 1961).

Despite the considerable number of large tools (axes) that exist, small tools are almost non-existent for the entire early and middle Bronze Age. As mentioned above, tanged and round-heeled daggers could have had more than one function during the early Bronze Age, as could the middle Bronze Age razors (class I). Taking into account the large numbers of bronze and gold artefacts that exist during this period, bronze hammers must also have been a widely used tool but they do not survive from the early or middle Bronze Age. Evidence for the use of small metal tools during the middle Bronze Age is also limited; indeed, the only example that occurs, and only in small numbers, is the awl. The woodworker, of course, would have had a variety of axes, but no tools for finer work, such as the creation of mortices, have survived.

The Bishopsland phase

Throughout most of Europe at the beginning of the late Bronze Age, *c.* thirteenth century BC, the use of tools was becoming more common. Apart from finds of individual objects, such as hammers and anvils (for the north European plain see Jantzen 2008), tools also constituted parts of grave groups and hoards (Randsborg 1984; Butler and Bakker 1961; Briard 1965). This was also the situation in Britain, notably southern England (Butler 1963; Smith 1959). Ireland also participated in equivalent developments, for which clear evidence is provided by the Bishopsland hoard (Fig. 5). For the first time a range of small tools were in use and this was brought about by the introduction of types from outside the country. Perhaps the manufacture of small tools and the knowledge of production, including the use of clay moulds, was only part of wider technological changes that were emerging, not only in metal but also in organic artefacts. Apart from the widespread use of bronze, there is positive evidence for the use of gold during this period, with the manufacture of superb gold ornaments such as twisted bar torcs (Eogan 1967). Woodworking, however, remained a key factor. The evidence provided by the hoards of bronze objects from Annesborough, Co. Armagh, and Bishopsland, Co. Kildare (Eogan 1964, figs 4 and 5; Herity and Eogan 1977, fig. 68; see Fig. 5), shows that two different types of palstave axes were in use, but the Bishopsland hoard also indicates the presence of other evidence for woodworking: the socketed axehead and the saw, but possibly also the trunnion chisel and the small flat chisel. Other items could also have been employed by the metal-worker. These are the anvil, clamp and 'graver', but possibly also the 'ear-pick', which could have been used in applying art to gold ornaments, in particular incised motifs similar to those applied to a bracelet (no. 2) in the Downpatrick no. 1 hoard (Eogan 1983, 35, no. 9, fig. 9:9). The bronze socketed hammers from the Bishopsland hoard could have been used by either a metal- or a woodworker, but the lighter example (see Fig. 5, 4) might have been reserved for fine work such as gold-working. Clearly this hoard provides good evidence for the existence of two types of craftsmen, but it also provides an insight into the wider economic background. The sickle suggests that these specialist craftsmen also had a farming basis and were probably well sustained, as the flesh-hook indicates cooking in a container (Hundt 1953; 1954; Jockenhövel 1974). The tweezers suggest personal care, such as facial beautification, and there were also personal

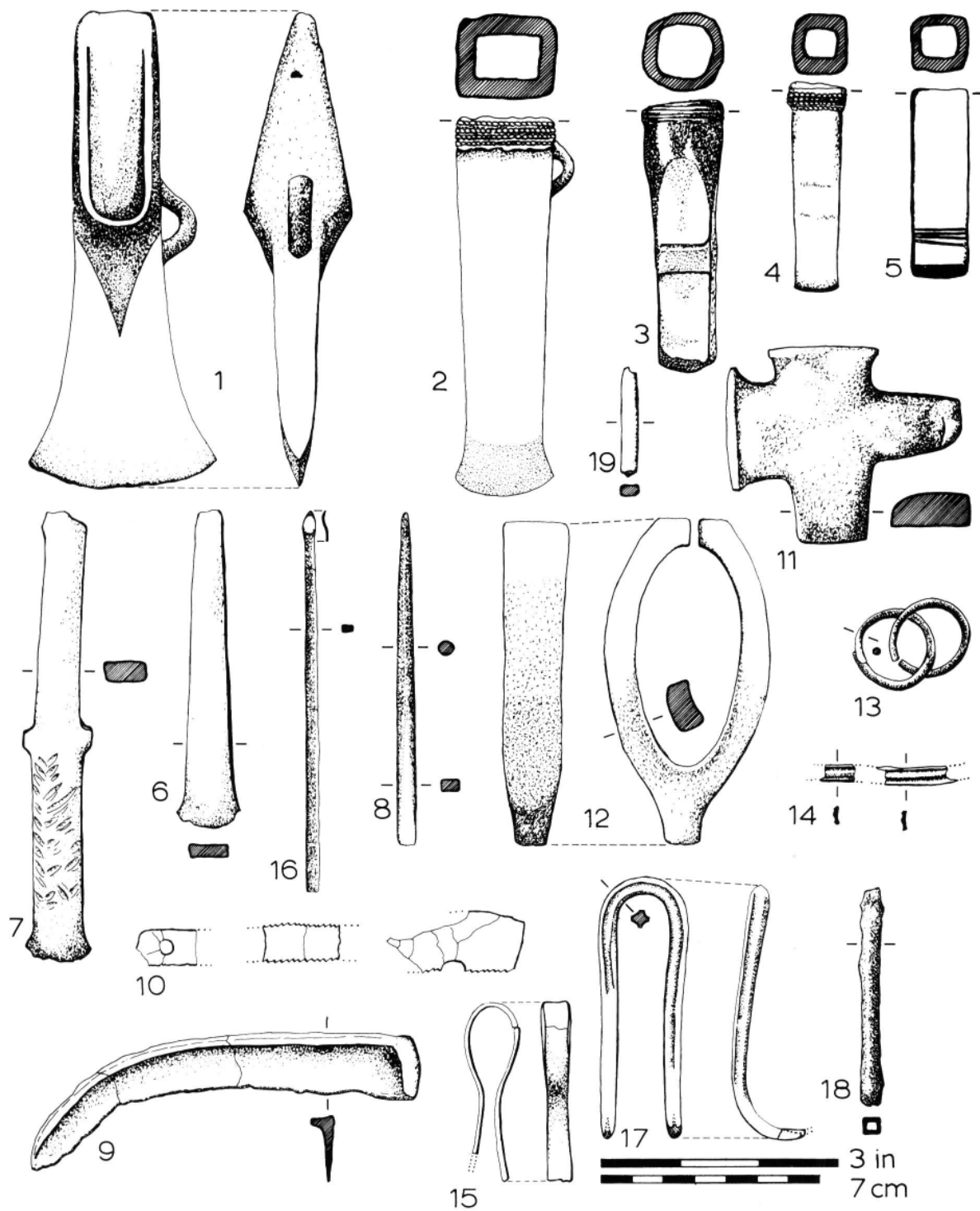


Fig. 5—Hoard from Bishopsland, Co. Kildare (from Eogan 1983, fig. 10).

ornaments in bronze, as the bracelets testify. Overall, this largely tool-based assemblage clearly demonstrates the existence of a metal-worker and a woodworker, but in view of the integrated association could it be that the same individual was a skilled worker in two separate media? In addition, he may also have had an economically secure background based on farming, while his wife was possibly attired with bronze ornaments on wrists and fingers and facially beautified by using the tweezers.

The Dowris phase

For the Dowris phase the following objects are being classified as small tools:

- Awls
- Gouges
- Chisels (socketed, long and short)
- Chisels (tanged)
- Chisels, trunnion
- Hammers, socketed
- Possibly knives (socketed, straight and curved blades, tanged)
- Possibly sickles (socketed, tanged)
- Possibly razors (class II)

In addition to axes, the above tools would have been used exclusively by craftsmen as part of both the manufacturing process and the embellishment of bronze and wooden objects. Knives, both socketed and tanged, sickles, also socketed and tanged, and class II razors could also have served as small tools (Fig. 6). For the Dowris phase, however, the socketed axehead remained the predominant tool, with over 1,800 examples surviving (Eogan 2000, 45–208, 215–16). These could have been used to fell large trees; that from which a portion was removed to manufacture the Cloonlara shield was at least 50cm in diameter. Large planks were used in the construction of the Ballinderry no. 2 structure (Hencken 1942, 6–27) as well as in the construction of toghers or trackways, such as that at Annaghcorrib, Garryduff Bog, Co. Galway, which extended for a distance of almost 2km. Oak was the timber used, and some of these timbers had mortices that tended to be oval or subrectangular in shape (B. Raftery *et al.* 1995, 40). It has been calculated that the provision of sufficient timber to construct that trackway could have occasioned the felling of an area of about 8ha, which would have been substantial.

The main tool used would have been the socketed axe, but that was only the beginning of the work. The trees had to be trimmed and split so as to form planks, and then detailed working was required to create mortices. The latter could have been achieved by the use of socketed axes, but could also have involved the utilisation of small tools of the types listed above. These tools would have been especially useful in performing fine work such as the manufacturing of wooden moulds for producing leather shields (Coles 1962, 177–81). They could also have been used in the manufacture of small containers, such as the small vessels that contained the gold dress-fastener from Killymoon, Co. Tyrone, and the gold ornament hoard from Kilmoyly North, Co. Kerry (Eogan 1983, nos 140 and 89), while the hoard from Bootown, Co. Antrim (*ibid.*, no. 35), may also have been in a wooden container.

Leather was another material that was used during this period, particularly in the manufacture of small objects, such as the small case for the class II razor from the Cromaghs, Co. Antrim, hoard (Eogan 1983, fig. 19; see Fig. 9), but also substantial items such as the leather shield from Clonbrin, Co. Longford, which is about 50cm in diameter and has art that consists of ribs and bosses (Eogan 1964, pl. 28).

Associations

Overall, tools are found in over 40 hoards; in context these range from two tools of the same type, such as the pair of socketed axes from Calverstown, Co. Westmeath (Eogan 1983, no. 148), to those containing multiple objects, such as Ballytegan, Co. Laois (*ibid.*, no. 94). Eleven hoards consist exclusively of metal tools, representing tool-kits of specialised woodworkers, while seventeen contain metal tools and one other object of a different type (see Tables 1 and 2; Figs 7 and 8). The hoards of specialist tools are mainly found east of the River Shannon in the provinces of Leinster and Ulster, while those hoards that consist of specialist tools plus one other type are predominantly northern, but with a small scatter in southern Connacht and the Lower Shannon area. Regarding individual types, the combined distribution of gouges, tanged chisels and socketed sickles is mainly in the eastern half of the country from Waterford to Donegal (see Fig. 10). Tanged chisels concentrate in the north-east but with a spread in the centre of the country. Obviously, owing to their usefulness, socketed axeheads have a wide distribution, and differences in size indicate that their

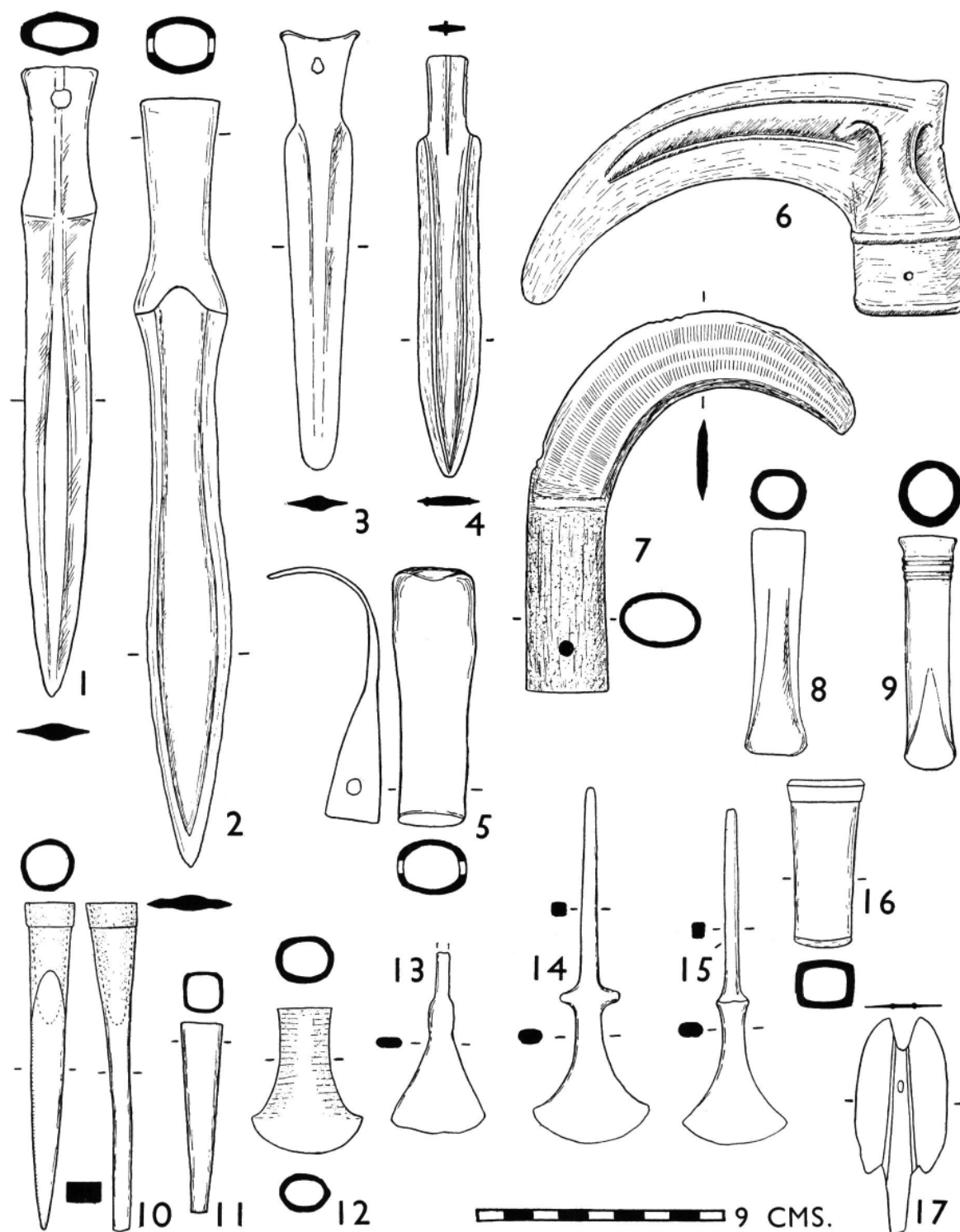


Fig. 6—Tools of the Dowris phase. 1: Ireland; 2: Kilmore, Co. Galway; 3: Co. Antrim; 4: Dowris hoard, Co. Offaly; 5: Knockmaon hoard, Co. Waterford; 6: Co. Westmeath; 7: Athlone, Co. Westmeath; 8: Knockmaon hoard, Co. Waterford; 9: Bootown hoard, Co. Antrim; 10: Ross hoard, Co. Tipperary; 11: Ballinderry hoard, Co. Westmeath; 12: Ireland; 13: Bolliaghine hoard, Co. Clare; 14 and 15: Knockmaon hoard, Co. Waterford; 16: Trillick, Co. Tyrone; 17: Killeavy, Co. Armagh; 18: Dowris hoard, Co. Offaly (from Eogan 1964).

Table 1—List of Dowris phase hoards consisting exclusively of metal tools (tool-kits of specialist craftsmen, likely woodworkers) and their contents.

No. in Eogan 1983	Find-place and its nature	County	Contents							Class II razor	Other
			Socketed axe	Socketed chisel	Tanged chisel	Gouge	Socketed knife	Socketed sickle			
37	Crevilly valley: objects in socket of axe	Antrim	1		1	1					
54	Booltiaghadine: objects in socket of axe (Fig. 7, A)	Clare	1		1					1	
62	Ballydivlin: unknown	Cork	1					1			
73	Glastry: unknown	Down			1	2					
74	Silvan Park: agricultural land	Dublin	2								
75	Boa Island: lake shore	Fermanagh	1			1					
91	Oghermong: bog	Kerry						1		Gold ring: handle mount?	
Eogan 2007	Loughbown: wetland (Fig. 7, B)	Galway	1		1	1					
125	Crossna: bog	Roscommon	3				1	1			
137	Ross: rock cleft	Tipperary	1	2		1			1		
148	Calverstown: bog	Westmeath	2								
Number of hoards			9	1	4	6	3	1		1	

Table 2—List of Dowris phase hoards consisting of metal tools and one other type of object.

No. in Eogan 1983	Find-place	County	Nature of find-place	List of contents
42	Belfast	Antrim/Down	Unknown	Socketed axehead, 3 gold sleeve-fasteners
43	Ballinliss	Armagh	Earthwork	Socketed axehead, socketed spearhead with ribbed kite-shaped blade
45	Killeavy	Armagh	Bog	Awl, tanged chisel, class II razor, jet ring
50	Callanagh	Cavan	Bog	Gouges, necklace of amber beads
O'Carroll & Ryan 1992 (Fig. 8)	Enagh East	Clare	Dryland	Gouge, tanged chisel, socketed chisel, socketed knife, 3 socketed axeheads, 4 plain rings
60	Teernagloghane	Clare	Ringfort bank	2 socketed axeheads, large tubular ring
77	Garden Hill	Fermanagh	Bog	Socketed hammer, plain ring, ring and staple
79	Killycreen West	Fermanagh	Bog	Gouge, socketed knife, necklace of amber beads
81	—	Fermanagh	Unknown	Gouge, 2 plain rings, ring with lateral buffer-shaped projections
84	Doon Upper	Galway	Under stone slab, dryland	Socketed axehead, plain ring, 2 rings with buffer-shaped projections
102	Glenstal	Limerick	Rough dryland	Socketed axehead, large plain ring, small plain ring, 2 rings with lateral buffer-shaped projections
Appendix A: 22	Lusmagh	Offaly	Unknown	Tanged chisel, trunnion chisel, gouge, 2 hammers, anvil, 2 miscellaneous bronze objects, stone object
146	Ballinderry	Westmeath	Bog	Socketed axehead, 2 gouges, socketed knife, tanged chisel, short socketed chisel, 2 large plain rings, ring with unprotected perforations
151	—	Westmeath	Unknown	Socketed axe, 2 large plain rings, 25 small plain rings
154	Forth Commons	Wexford	Rock cleft	'Gouges, axes and other bronze objects'
155	Kish	Wicklow	Dryland	Socketed knife, 2 socketed axes, base-looped spearhead
156	—	Wicklow	Unknown	Socketed axe, penannular gold bracelet with solid, evenly expanded terminals

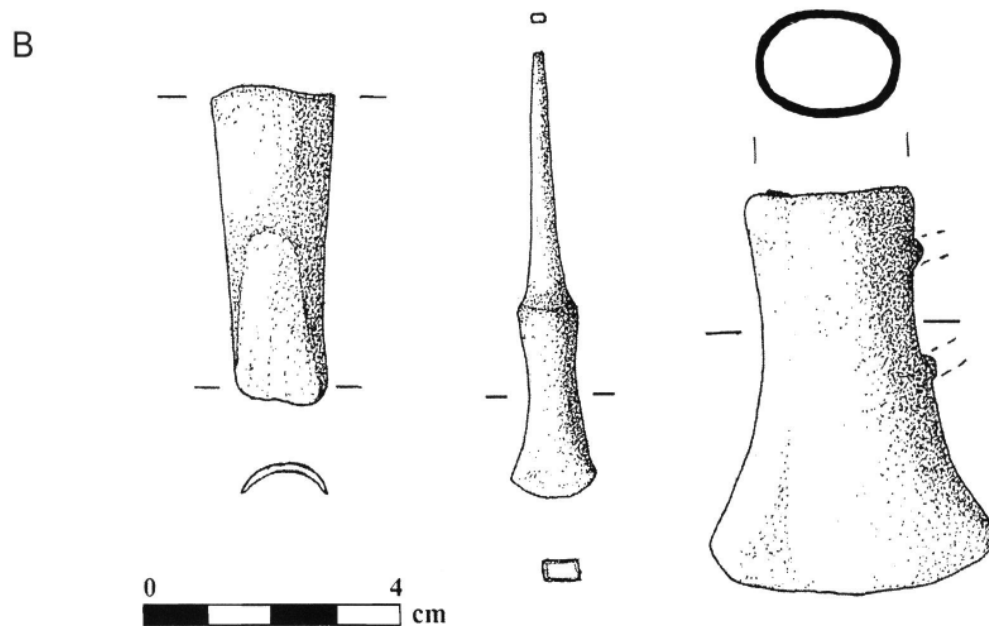
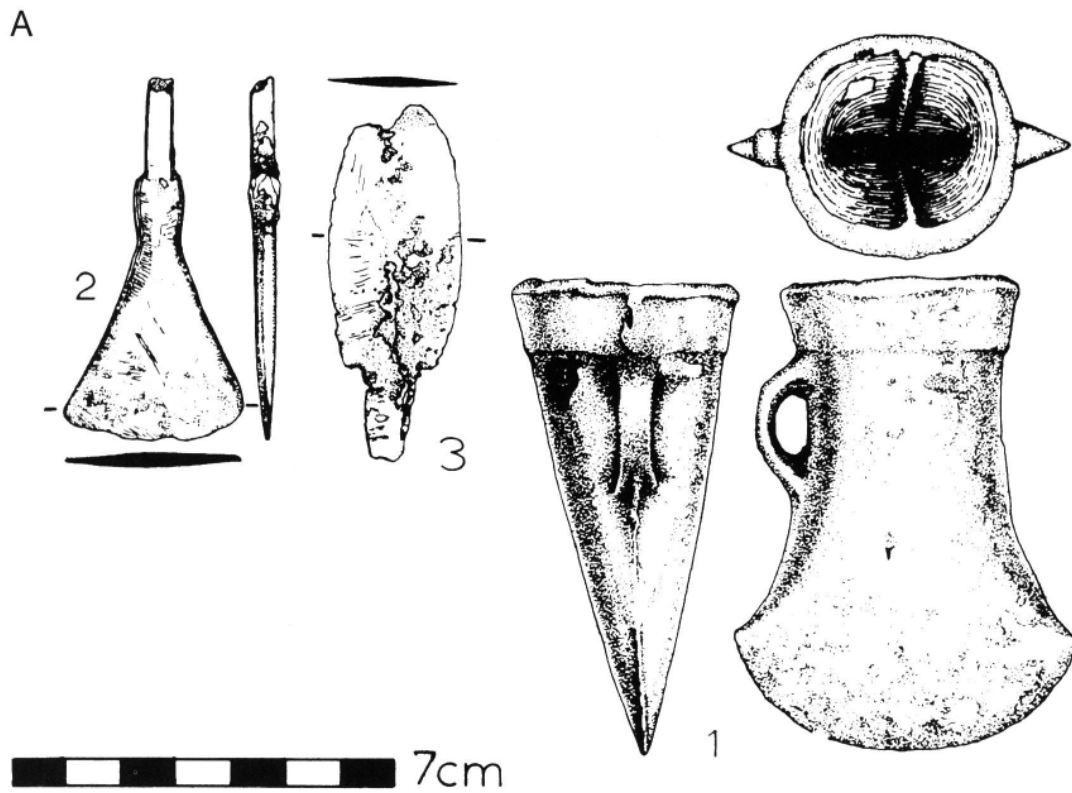


Fig. 7—Hoards of the Dowris phase containing metal tools only. A: Booltiaghadine, Co. Clare (after Eogan 1983, fig.21:D). B: Loughbown, Co. Galway (after Eogan 2007).

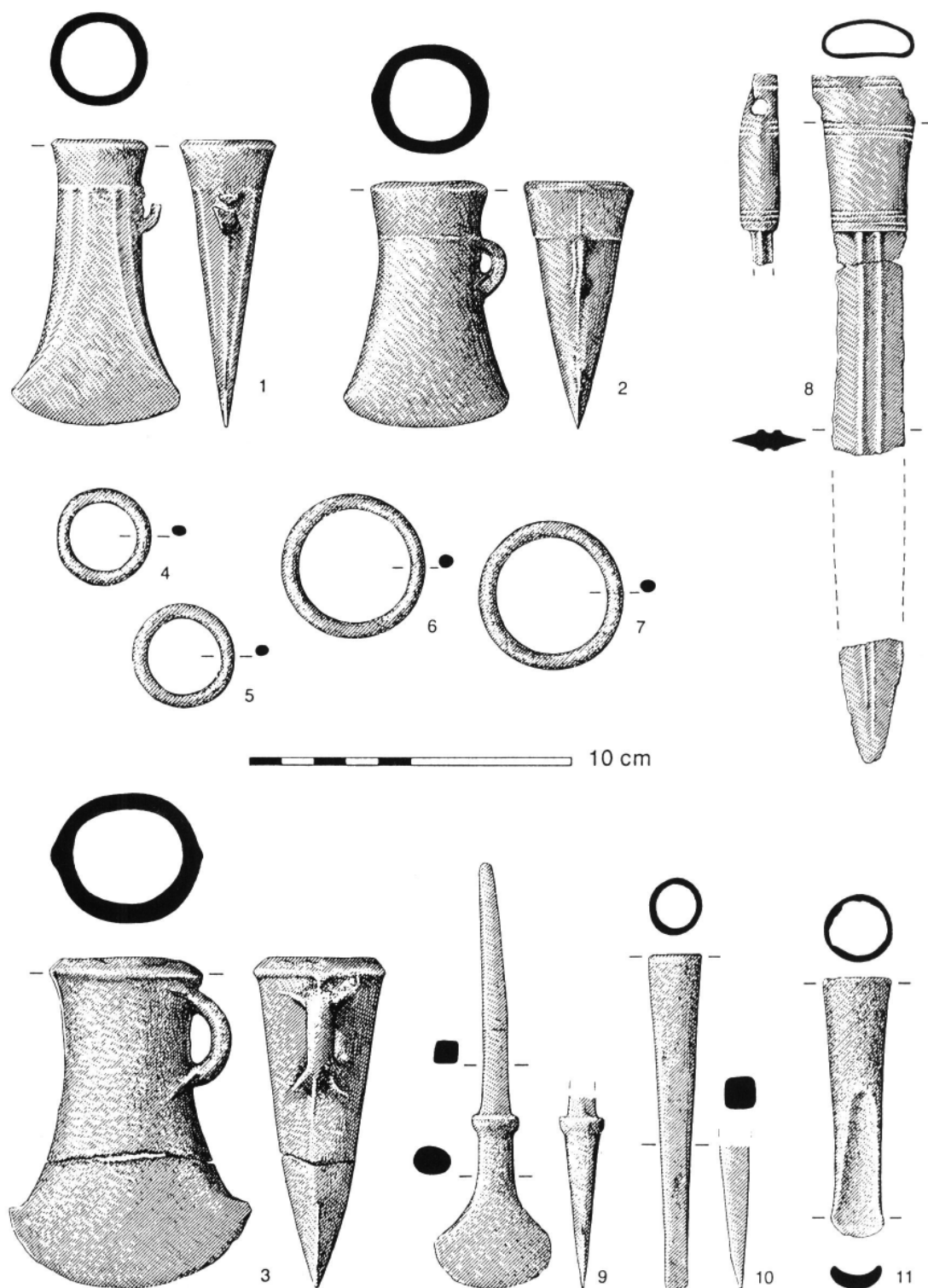


Fig. 8—Hoards of the Dowris phase containing metal tools and one other type of object: Enagh East, Co. Clare (after O'Carroll and Ryan 1992, illus. 3).

function differed also (Eogan 2000, pl. 112), although regional preferences existed, such as classes 5, 6 and 7, which are mainly confined to the north-east of the country (*ibid.*, pls 115–116A). In considering the distribution of all classes, however, the occurrence is sparse in south Leinster and Munster (*ibid.*, pls 113–122). Despite the fact that the small bronze tools are mainly found in the eastern part of the country, this hardly indicates that manufacture was confined to that region. After all, there are concentrations of different types of specific artefacts in the north Munster and east Ulster areas (Herity and Eogan 1977, fig. 86).

As virtually all of the exclusive hoards contain socketed axes (9), followed by gouges (6) and chisels, both socketed and tanged (5), it can be assumed that each served as a tool-kit of a woodworker (Table 1). The Cromaghs, Co. Antrim, hoard (no. 38) gives some idea of the paraphernalia of such a person (Fig. 9). He appears to have been clean-shaven, dressed in a loose-fitting woollen cloak that was fastened at the neck by a pin and further secured around the waist by a horse-hair belt. In addition, there are seventeen hoards that consist of metal tools in association with one other type of object (Table 2). Amongst the non-tool types are necklaces of amber beads in two hoards (Eogan 1983, nos 50 and 79), spearheads in two hoards (*ibid.*, nos 43 and 155) and two or more bronze rings in seven hoards (*ibid.*, nos 77, 81, 84, 102, 146, 151; O'Carroll and Ryan 1992; see Fig. 8).

Of the small metal tools, socketed gouges and tanged chisels are the dominant type and these can occur with up to three additional types of object (see Tables 3 and 4). In addition to the hoards discussed (see Tables 1–4), small metal tools are also found in association with a wider range of metal objects in a further sixteen Dowris hoards. These vary from a sword and a bronze cake at Cooga, Co. Sligo (*ibid.*, no. 128), to a dress-fastener, sixteen pins, eleven rings and three beads at Derryhale, Co. Armagh (*ibid.*, no. 44).

Five distinctive types of bronze tools are represented in the hoards: socketed axes, awls, chisels (socketed and tanged), gouges and hammers, while knives (socketed and tanged), sickles (socketed and tanged), class II razors and anvils could, if the occasion demanded, also have functioned as tools. The class II razors, for example, could have been small tools for use in both fine woodworking and leather-working. Tanged chisels have also been considered as leather-working tools by Joseph Raftery (1942, 128) and later by Roth (1974). The hammer could have been used by both the metal- and the woodworker and, unlike Continental examples, the striking surface may be either plain or

expanded (see Jockenhövel 1982, fig. 1). There were differences in the size of objects manufactured from organic material; for example, creating the wooden box that contained the hoard of gold ornaments from Killymoon, Co. Tyrone (Eogan 1983, no. 140, fig. 4:2), and the leather case for the razor from the Cromaghs, Co. Antrim, hoard (*ibid.*, no. 38, fig. 4:4) involved small tools, but the wooden notched shield mould from Cloonlara, Co. Mayo, and the leather notched shield from Clonbrin, Co. Longford, involved both the use of large tools, such as socketed axes, and small tools for finishing the work. In acquiring suitable wood for the manufacturing of the notched shields a tree at least 50cm in diameter had to be felled. The leather shield is of a similar diameter so a large animal hide had to be procured, trimmed and impressed onto the wooden shield mould. The manufacture of shields, therefore, involved not only different materials but also different bronze tools, both large and small. Furthermore, Coles (1962, 178) has suggested that a wooden punch was also used in the formation of leather shields.

Owing to their poor preservation and difference in patination, the two objects from Boa Island (see Table 1) may not constitute a hoard, but all the others listed in Tables 1 and 2 can be considered as associated finds. This is mainly due to the homogeneity of preservation, to the fact that, of the overall figure, nineteen out of 28 have a precisely recorded find-place, and to the fact that the contents are in good condition. There are slight notches on the working edge of a number but it has not been possible to determine whether these can be attributed to original use or to damage caused subsequent to discovery. It is of interest that there are a similar number of hoards consisting exclusively of specialist tools (11) to those consisting exclusively of weapons (swords and spearheads) (13). On that evidence it can be suggested that the craftsman, especially the woodworker, was as significant a member of society as the warrior. Both types can be associated with males but, taking other evidence into consideration, this need not imply that only the male played a predominant role in society. The hoards consisting exclusively of gold ornaments, for example, are the most common of specialist artefacts, with approximately 30 examples recorded. Only on four occasions have gold ornaments been found in association with tools (*ibid.*, nos 42, 46, 65 and 156). In all cases a socketed axe was the associated tool. This presence of ornaments, especially those made from gold, highlights the role of the female. What precisely that role was remains unknown, but it may have

Table 3—Bronze socketed gouges: list of associations.

No. in Eogan 1983	Find-place	County	Nature of find-place	Associated finds
35	Bootown	Antrim	Bog	Spearhead, socketed axe, tanged chisel, bronze rings, wooden bowl
37	Crevilly valley	Antrim	No information	Socketed axe, tanged chisel
38	Cromaghs (Fig. 9)	Antrim	Bog	Socketed axe, class II razor, sunflower pin, textiles
O'Carroll & Ryan 1992	Enagh East (Fig. 8)	Clare	Dryland	Socketed axes, other tools
73	Glastry	Down	No information	Tanged chisel
75	Boa Island	Fermanagh	No information	Socketed axe
79	Killycreen West	Fermanagh	Bog	Socketed knife, necklace of amber beads
81	-	Fermanagh		Bronze rings (3)
Eogan 2007	Loughbown (Fig. 7, B)	Galway	Lake	Tanged chisels (2), axe
119	Dowris	Offaly	Wetland	Tools, weapons, etc.
Appendix A: 22	Lusmagh	Offaly	No information	Tanged chisel, trunnion chisel, socketed hammers (2), anvil, miscellaneous bronze objects (2), stone object
125	Crossna	Roscommon	Bog	Socketed axes, socketed knife
131	Lufferton	Sligo	Dryland	Socketed axes, chape, rings
135	Cullen	Tipperary	Bog	Weapons, ornaments
137	Ross	Tipperary	Dryland (rock cleft)	Socketed chisels, socketed sickle
144	Knockmaon	Waterford	Bog	Tanged knife, socketed knives, socketed axes, tanged chisels
146	Ballinderry	Westmeath	Bog	Socketed axe, socketed chisel, socketed knife, 3 rings
152	Ballyvadden	Wexford	No precise information	Socketed axes (2), socketed knife, plain ring, ring with buffers, fragments of bronze, pottery vessel

Table 4—Tanged chisels: list of associations.

No. in Eogan 1983	Find-place	County	Nature of find-place	Associated finds
35	Bootown	Antrim	Bog	Spearhead, socketed axe, socketed gouge, bronze rings, wooden bowl
37	Crevilly valley	Antrim	No information	Socketed axe, socketed gouge
45	Killeevy	Armagh	Bog	Bronze awl, jet ring
O'Carroll & Ryan 1992	Enagh East (Fig. 8)	Clare	Dryland	Socketed axes, other tools
54	Booltiaghadine (Fig. 7, A)	Clare	No information	Socketed axe, razor
73	Glastry	Down	No information	Socketed gouges
Eogan 2007	Loughbown (Fig. 7, B)	Galway	Lake	Gouge, socketed axe
Appendix A: 22	Lusmagh	Offaly	No information	Gouge, trunnion chisel, socketed hammers (2), anvil, miscellaneous bronze objects (2), stone object
144	Knockmaon	Waterford	Bog	Tanged knife, socketed knives, socketed axes
146	Ballinderry	Westmeath	Bog	Socketed axe, socketed gouges (2), socketed chisel, socketed knife, rings (3)

been ceremonial in nature, perhaps the equivalent of a priestess who played a key role in the course of ceremonies or ritual engagements.

The hoards of specialist tools throw light on other aspects of the Dowris phase. They indicate the role of individualism but also social identity. It can be assumed that the hoards were the tool-kit of a specialist, a person who would have possessed the skills of a craftsman, a woodworker in particular. Like the metal-worker, this was probably a

special person, a respected and honoured member of society, upon whose death their prized possessions, the tools of their trade, were collected with care and deposited in their memory, usually in a pit dug into the earth, or committed to a lake or bog. There is no evidence that the place of deposition was marked in a visible way, but the act alone must have been a significant undertaking as it would have been the final performance in the life and career of a person who served society and was in turn probably greatly



Fig. 9—Artist's representation of a woodworker, based on the tools and other objects from the Cromaghs hoard, Co. Antrim (after Eogan 1983, fig. 19; courtesy of Niamh O'Broin).

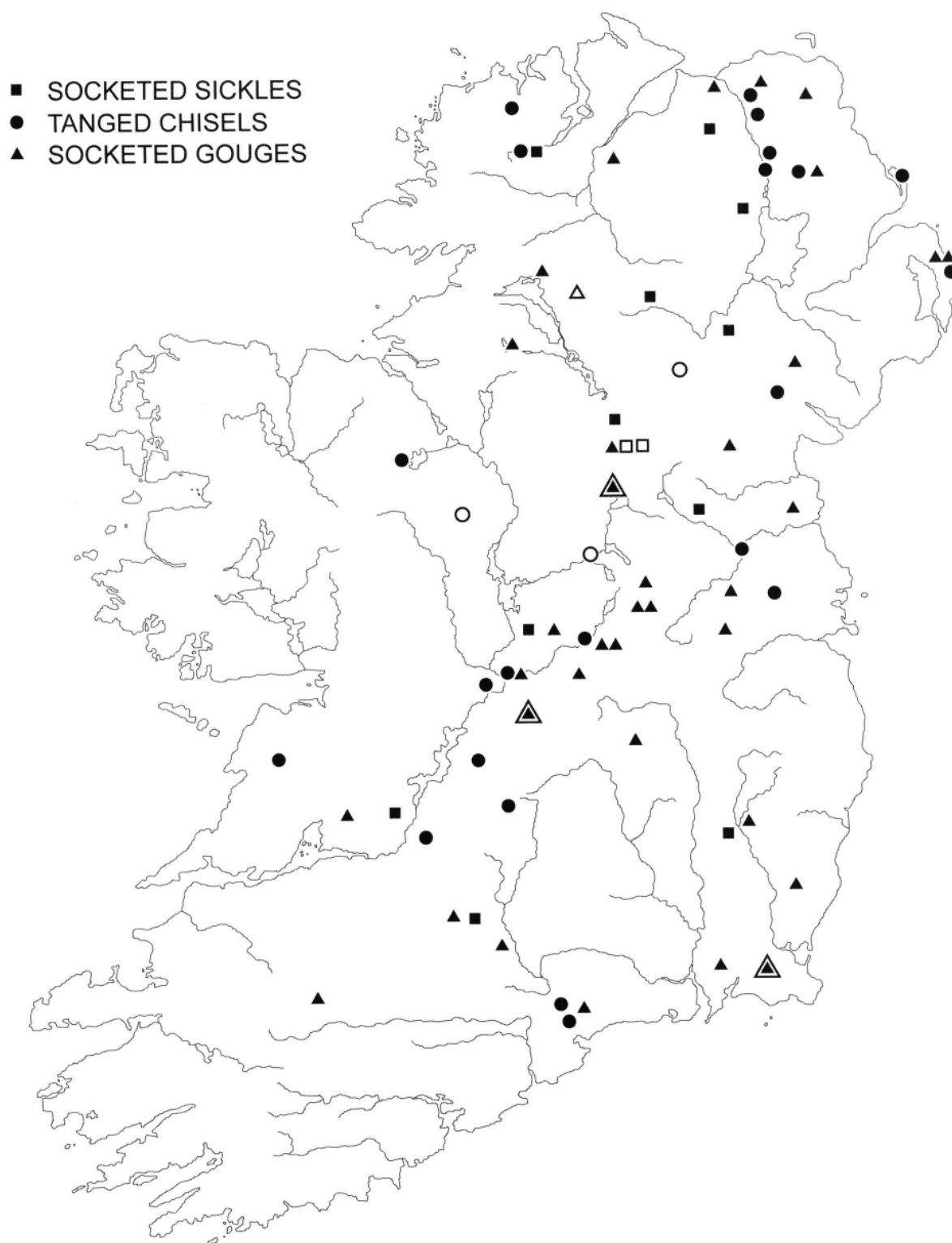


Fig. 10—Provisional map of distribution of socketed sickles, tanged chisels and socketed gouges (after Eogan 1974).

respected by it. The deposition would have been the closing of a chapter, as physically and materially the person no longer existed; so although their possessions existed they were no longer visible, and thereafter only the memory survived in local folklore. After many years even that memory would have faded, and only by a chance discovery after thousands of years would the person again come into 'existence'.

Discussion

From about the eighth century BC the halcyon days of the late Bronze Age were over, and it was coming under influences that stemmed from the west-central European Hallstatt C complex, but more immediately from Britain. For this, definite evidence is provided by bronze swords of class 5 and chapes of class 4 (Eogan 1965, 13–15, nos 501–543; 168–76, nos 1–24). But changes in tool types also took place, and the best evidence for this is provided by socketed axes of classes 14–17, which represent influences from Britain, although some local development may also have been a feature. In their manufacture, certainly for class 17, there was a reversion to the use of stone moulds. Axes of those late classes would have been as effective a tool as any of the earlier types. In form they retain some morphological features that recall the foregoing types, but there is another type, class 13, that is quite different: its sides are parallel and its homeland is Armorica. These axes come at the end of a series of manufacture and use of a most effective tool type that goes back to the late third millennium BC. Some of the axes that constitute this final group were as usable as any of the earlier types, but that was not the case with class 13 axes. Their role seems to have been symbolic rather than functional, as the metal from which they were manufactured contained a high proportion of lead; as a result they were soft and would not have been an effective tool. Effectively bronze axes were now redundant, and that was also very likely the case with the small tools.

Despite the widespread use of tools during the Bronze Age, they had no direct Iron Age successors. By the seventh century BC the Bronze Age and its characteristic tools was at an end and a new material culture was emerging, the Iron Age. Here, again, we return to the work of Barry and his studies of iron tools and woodworking, particularly his excavation of the Corlea, Co. Longford, roadway (B. Raftery 1996, 70–93). The use of wood shows that a variety of tools were in use, as were a range of wooden artefacts, which varied

from the great split oak planks used in the construction of the Corlea roadway to the poplar wood cauldron from Altartate Glebe, Co. Monaghan (B. Raftery 1994, fig. 64a). With these different tools and objects we move into a different cultural and technological phase that has been explained by Barry in his notable publications, including *Pagan Celtic Ireland* (1994; see also Raftery 1983; 1984).

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Note

- (1) Referred to as Knocknague; only two awls are illustrated.

References

- Binchy, E. 1967 Irish razors and razor-knives. In E. Rynne (ed.), *North Munster studies: essays in commemoration of Monsignor Michael Moloney*, 43–60. Limerick. Thomond Archaeological Society.
- Briard, J. 1965 *Les depots Bretons et l'Age du Bronze atlantique*. Travaux du Laboratoire d'Anthropologie Préhistorique de la Faculté des Science de Rennes.
- Butler, J.J. 1963 Bronze Age connections across the North Sea. *Palaeohistoria* 9, 1–286.
- Butler, J.J. and Bakker, J.A. 1961 A forgotten Middle Bronze Age hoard with a Sicilian razor from Ommerschans (Overijssel). *Helinium* 1, 193–210.
- Clark, G. 1952 *Prehistoric Europe: the economic basis*. London. Methuen.
- Coles, J. 1962 European Bronze Age shields. *Proceedings of the Prehistoric Society* 28, 156–90.
- Collins, A.E.P. and Evans, E.E. 1968 A cist burial at Carrickinab, Co. Down. *Ulster Journal of Archaeology* 31, 16–24.
- Coghlan, H.H. and Raftery, J. 1961 Irish prehistoric casting moulds. *Sibrium* 6, 223–44.
- Eogan, G. 1964 The Later Bronze Age in Ireland in the light of recent research. *Proceedings of the Prehistoric Society* 30, 268–351.

- Eogan, G. 1965 *Catalogue of Irish bronze swords*. Dublin. The Stationery Office.
- Eogan, G. 1967 The associated finds of gold bar torcs. *Journal of the Royal Society of Antiquaries of Ireland* 97, 129–75.
- Eogan, G. 1974 Regionale Gruppierungen in der Spätbronzezeit Irlands. *Archäologisches Korrespondenzblatt* 4, 319–27.
- Eogan, G. 1983 *Hoards of the Irish Later Bronze Age*. University College Dublin.
- Eogan, G. 1993 Aspects of metal production and manufacturing systems during the Irish Bronze Age. *Acta Praehistorica et Archaeologica* 25, 87–110.
- Eogan, G. 1994 *The accomplished art: gold and gold-working in Britain and Ireland during the Bronze Age*. Oxford. Oxbow Books.
- Eogan, G. 2000 *The socketed bronze axes in Ireland*. Prähistorische Bronzefunde, Abteilung IX, Band 22. Stuttgart. Franz Steiner Verlag.
- Eogan, G. 2003 Burial practices in Ireland during the Bronze Age and Iron Age. In R. Vasić (ed.), *Sahranjivanje u Bronzanoi i Gvozdeno Doba*, 69–89. Čačak. Narodni Muzej.
- Eogan, G. 2007 The tool kit of a Late Bronze Age woodworker from Loughbown, Co. Galway. In C. Burgess, P. Topping and F. Lynch (eds), *Beyond Stonehenge: essays in honour of Colin Burgess*, 354–60. Oxford. Oxbow Books.
- Harbison, P. 1967 Some minor metal products of the Early Bronze Age in Ireland. *Journal of the Cork Historical and Archaeological Society* 72, 93–100.
- Harbison, P. 1969a *The axes of the Early Bronze Age in Ireland*. Prähistorische Bronzefunde, Abteilung IX, Band 1. Munich. C.H. Beck'sche.
- Harbison, P. 1969b *The daggers and halberds of the Early Bronze Age in Ireland*. Prähistorische Bronzefunde, Abteilung VI, Band 1. Munich. C.H. Beck'sche.
- Harding, A. 2008 Razors and male identity in the Bronze Age. In F. Verse et al., *Durch die Zeiten: Festschrift for Albrecht Jockenhövel*, 191–5. Rahden. Verlag Marie Leidorf.
- Hencken, H. O'N. 1942 Ballinderry Crannog No. 2. *Proceedings of the Royal Irish Academy* 47C, 1–76.
- Herity, M. and Eogan, G. 1977 *Ireland in prehistory*. London. Routledge and Kegan Paul.
- Hundt, H.-J. 1953 Über Tüllenhaken und-gabeln. *Germania* 31, 145–55.
- Hundt, H.-J. 1954 Ein Tüllenhaken von Babenhausen, Kr. Dieburg. *Germania* 32, 214–15.
- Hundt, H.-J. 1975 Steinerner und Kupferne Hämmer der Frühen Bronzezeit. *Archäologisches Korrespondenzblatt* 5, 115–20.
- Jantzen, D. 2008 *Quellen zur Metallverarbeitung im Nordischen Kreis der Bronzezeit*. Prähistorische Bronzefunde, Abteilung XIX, Band 2. Stuttgart. Franz Steiner.
- Jockenhövel, A. 1974 Fleischhaken von den Britischen Inseln. *Archäologisches Korrespondenzblatt* 4, 329–38.
- Jockenhövel, A. 1980 *Die Rasiermesser in Westeuropa*. Prähistorische Bronzefunde, Abteilung VII, Band 3. Munich. C.H. Beck'sche.
- Jockenhövel, A. 1982 Zu den ältesten Tüllenhämmern aus Bronze. *Germania* 60, 459–67.
- Kavanagh, R. 1991 A reconsideration of razors in the Irish earlier Bronze Age. *Journal of the Royal Society of Antiquaries of Ireland* 121, 77–104.
- McConway, C. and Donnelly, E. 2006 Daggers at dawn. *Archaeology Ireland* 76, 5.
- O'Carroll, F. and Ryan, M. 1992 A Late Bronze Age hoard from Enagh East, Co. Clare. *North Munster Antiquarian Journal* 34, 3–12.
- O'Kelly, M.J. 1951 An Early Bronze Age ring-fort at Carrigillihy, Co. Cork. *Journal of the Cork Historical and Archaeological Society* 56, 69–86.
- O'Sullivan, A. 1996 Neolithic, Bronze Age and Iron Age woodworking techniques. In B. Raftery, *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*, 291–342. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Piggott, C.M. 1946 The Late Bronze Age razors of the British Isles. *Proceedings of the Prehistoric Society* 12, 121–41.
- Raftery, B. 1976 Rathgall and Irish hillfort problems. In D. W. Harding (ed.), *Hillforts: later prehistoric earthworks in Britain and Ireland*, 339–57. London. Academic Press.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1990 *Trackways through time. Archaeological investigations on Irish bog roads 1985–1989*. Rush.

- Headline Publishing.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 1996 *Trackway excavations in the Mountdillon Bogs, Co. Longford, 1985–1991*. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Raftery, B., Jennings, D. and Moloney, A. 1995 *Annaghcorrib 1, Garryduff Bog, Co. Galway*. Irish Archaeological Wetland Unit Transactions 4. Dublin. Crannóg Publications.
- Raftery, J. 1942 Finds from three Ulster counties. *Ulster Journal of Archaeology* 5, 120–31.
- Ramsey, G. 1995 Middle Bronze Age metalwork. In J. Waddell and E. Shee-Twohig (eds), *Ireland in the Bronze Age*, 29–62. Dublin. The Stationery Office.
- Randsborg, K. 1984 A Bronze Age grave on Funen containing metal workers tools. *Acta Archaeologica* 55, 185–9.
- Roth, H. 1974 Ein Ledermesser der Atlantischen Bronzezeit aus Mittelfranken. *Archäologisches Korrespondenzblatt* 4, 37–47.
- Rynne, E. 1961–3 Notes on some antiquities found in Co. Kildare. *Journal of the Kildare Archaeological Society* 13, 458–62.
- Smith, M.A. 1959 Some Somerset hoards and their place in the Bronze Age of southern Britain. *Proceedings of the Prehistoric Society* 25, 144–87.
- Thomas, N. 1968 Note on the Carrickinab awl. *Ulster Journal of Archaeology* 31, 23–4.
- Waddell, J. 1998 *The prehistoric archaeology of Ireland*. Galway University Press.

An assessment of middle Bronze Age domestic pottery in Ireland

Eoin Grogan and Helen Roche

Introduction

There are many aspects of Irish archaeology that have changed in the past two decades and not least of these is the explosion of new, and largely unassimilated, data. One consequence of this is the quantity of new artefactual information, and especially well-contexted prehistoric pottery. Not many archaeologists continue to have an interest, in the great scholarly tradition that Barry Raftery has graced, in prehistoric artefacts. Those that have often see their research subsumed, and often largely ignored, in the unpublished final reports that remain the end product for far too many excavations. There are, alas (and to paraphrase the Bible), too few labourers in this particular vineyard, but some superb research is being carried out in the context of, for example, 'pottery reports'.

One area where there has been significant progress is in the identification of a distinct middle Bronze Age ceramic tradition, although much work remains in disentangling the origins and chronology of this material and its development into pottery of the final stages of the Bronze Age. This tradition has been touched on by a number of scholars since initial reference by Kavanagh (1976, 330)—in particular, Waddell's (1995) identification of the domestic variant of the Cordoned Urn Tradition and Brindley's (2007a, 143) references to these developments, including an unpublished but much more extensive assessment of the pottery from Knockhouse Lower, Co. Waterford (Brindley 2005; 2007b; Richardson and Johnson 2007). This material was also discussed in relation to the very large assemblages at Lough Gur, Co. Limerick (Grogan 2005, table 1).

It is evident that during the middle Bronze Age two general developments occur in ceramic production. The first is the decline in the use of decoration and the second is the increasing emphasis on multipurpose vessels that were used, apparently indiscriminately, for cooking, storage or in funerary or ritual contexts. Indeed, a large number of funerary vessels show evidence for previous domestic use.

The early to the middle Bronze Age

By the latter part of the early Bronze Age the ceramics accompanying, or more often containing, burial are dominated by two principal types: collared and cordoned urns (Kavanagh 1976; Brindley 1980; 2007a; Waddell 1995). These have a wide distribution in the north of the country but, while regionally popular elsewhere, for example cordoned urns in parts of south Leinster and collared urns in the south-east, these traditions are far from ubiquitous (Fig. 1). These vessels are most commonly inverted over cremations in pits that can occur singly or in cemeteries. Comparatively high percentages of both pottery types are plain (apart from the elaborated collars or cordons), and there is an increase in the incidences where the vessels are upright rather than inverted over the cremation (Grogan 2004, tables 2 and 5). These ceramic traditions are now very well dated through Brindley's (2007a) extensive chronologies and span the period 1850–1500 BC.

The Cordoned Urn Tradition

Current evidence indicates that towards the end of this phase, certainly by 1500 BC, vessels of the Cordoned Urn Tradition, but less formally decorated and sometimes of coarse fabric, were in use on domestic sites. These—the domestic variant (Waddell 1995, 113, 118)—have applied or pinched-up cordons on the upper body or neck, and the decoration consists of heavy cord-impressed or incised motifs around the upper third of the pot. This appears, initially, to mirror that of the funerary variant, which consists principally of four elements: filled or open triangles, chevrons, lattice patterns and vertical rectangular panels. While this is certainly a limited repertoire (Waddell 1995, 117–18), the motifs are manifest in a wide range of unique combinations and detail. It is clear that the vessels were individualised, if not personalised, expressions within the overall tradition. Even at an early stage it appears that the decoration of the domestic vessels is less formally or carefully arranged and lacks the distinct 'flag' or 'emblematic' layout



Fig. 1—The distribution of cordoned and collared urns, and middle Bronze Age plain ware vessels (source: Kavanagh 1976, with additions).

of the funerary pots (Grogan and Roche 2009). While the pace of change is not yet understood, it seems that decoration, other than the cordons, gradually disappeared and frequently the cordons themselves are less pronounced. At Coolcork, Co. Wicklow, a funerary-quality vessel came from mixed contexts that also produced two domestic pots; all three had been used for cooking and there was no indication of burial activity on the site (Grogan and Roche 2007a). A cordoned urn variant, with heavy cord ornament but without cordons, at Carrig, Co. Wicklow, post-dated two cordoned urn burials within the same cist (Grogan 1990). The extensive settlement site at Ballybrowney Lower (Cotter 2005; Roche and Grogan 2005) produced both domestic cordoned urns and plain ware (see below) vessels. There are few other recorded associations between the two pottery types, although plain ware vessels have come from cemeteries that contain cordoned urns, such as Cush, Co. Limerick, and Knockast, Co. Westmeath (Ó Ríordáin 1940; Hencken and Movius 1934), as well as from the wedge tomb at Harristown, Co. Waterford (Hawkes 1941).

What appear to be domestic cordoned urns have long been identified in the archaeological record. The assemblage from Downpatrick, Co. Down (Pollock and Waterman 1964), for example, had already been discussed by ApSimon in 1969 and by Brindley in 1980 (203–4). The pottery from Ballyveelish, Co. Tipperary, also belongs to this tradition (Doody 1987).

Recent discoveries

Several recent excavations have produced domestic pottery of this type. These include Ballinaspig More 5, Ballybrowney Lower 1, Rathcormack and Curraghprevin, Co. Cork (Fig. 1; Danaher 2004; Grogan and Roche 2004a; Cotter 2005; Roche and Grogan 2005). There is a cluster of related sites in the Cahir area, including Cloghabreedy (sites 125.3 and 125.4), Suttonrath, Ballydrehid and Clonmore North, Co. Tipperary (Grogan and Roche 2009). Other examples include Ask, Co. Wexford, and Johnstown, Co. Wicklow (Stevens 2007; Grogan and Roche 2008a; Fitzpatrick 1998).

The largest assemblage comes from the Knockadoon peninsula at Lough Gur, Co. Limerick (Ó Ríordáin 1954; Grogan and Eogan 1987; Cleary 1995). These vessels feature various combinations of applied cordons and rilling, as well as open lattice or infilled panels of elongated opposed triangles beneath the rim (Fig. 2; see Grogan and Eogan

1987, figs 44, 45, 51, 68; Ó Ríordáin 1954, figs 17–19, 34: 25, 26, pls 34, 35). Decorative application occurs in the form of incision (both fine lines and channels), heavy twisted cord, and applied or pinched-up cordons. There is a limited range of rim forms, including simple round and flat tops, as well as rims with a straight or slightly curved internal bevel; more sharply curved or stepped bevels also occur (Grogan and Eogan 1987, fig. 68: 893, 895, 896). Although it is difficult to disentangle some of this material from the late Bronze Age assemblage, these domestic cordoned vessels are certainly present at four sites (Circle L, Sites C, D and H; Grogan 2005, 318–19, table 1); the inclusions of calcitic, limestone and volcanic material reflect the local geomorphology.

The domestic vessels are of very similar fabric to the funerary examples, generally well fired to a buff, or more commonly brown-buff, colour. Although many have darker cores and inner surfaces, a feature of some vessels, common within early Bronze Age ceramic groups, is a two-tone fabric colour—brown-buff to buff to cream- or even pink-buff towards the exterior and darker, grey to dark grey on the inner part of the section. Pottery from Adamstown sites 1–3, Co. Waterford (Grogan and Roche 2008b), for example, represents coarse vessels that still retain some middle Bronze Age traits, such as the two-tone section—buff to cream- or even pink-buff towards the exterior and darker, grey to dark grey on the inner side. As might be expected with pots intended primarily for domestic use, the inner surfaces are frequently smoother and more carefully finished than the outer. A small number of vessels from, for example, Ask, Ballybrowney and Scartbarry have an at least partly burnished outer surface, confined largely to the upper portion of the pot (Fig. 2: 4). There is a medium to high content of inclusions—of shale, dolerite or sandstone, depending to some extent on the local geology—and these, while generally of moderate size ($\leq 7\text{mm}$ by 5mm), can frequently be over 10mm in maximum dimensions. Wall thickness varies considerably but the majority are in the 9–12mm range.

An important collection of this material occurred on the enclosed settlement of Knockhouse Lower, where at least eighteen vessels were represented (Richardson and Johnson 2007; Brindley 2007b). One of the most significant aspects of this collection was the variety of pot types represented, including ‘open straight-sided pots, barrel-shaped vessels, a tall waisted vessel, bowls, scoops and drinking vessels’ (Brindley 2007b, 13¹). Elsewhere, the majority of the vessels are of tub or generally bucket shape, with straight or gently

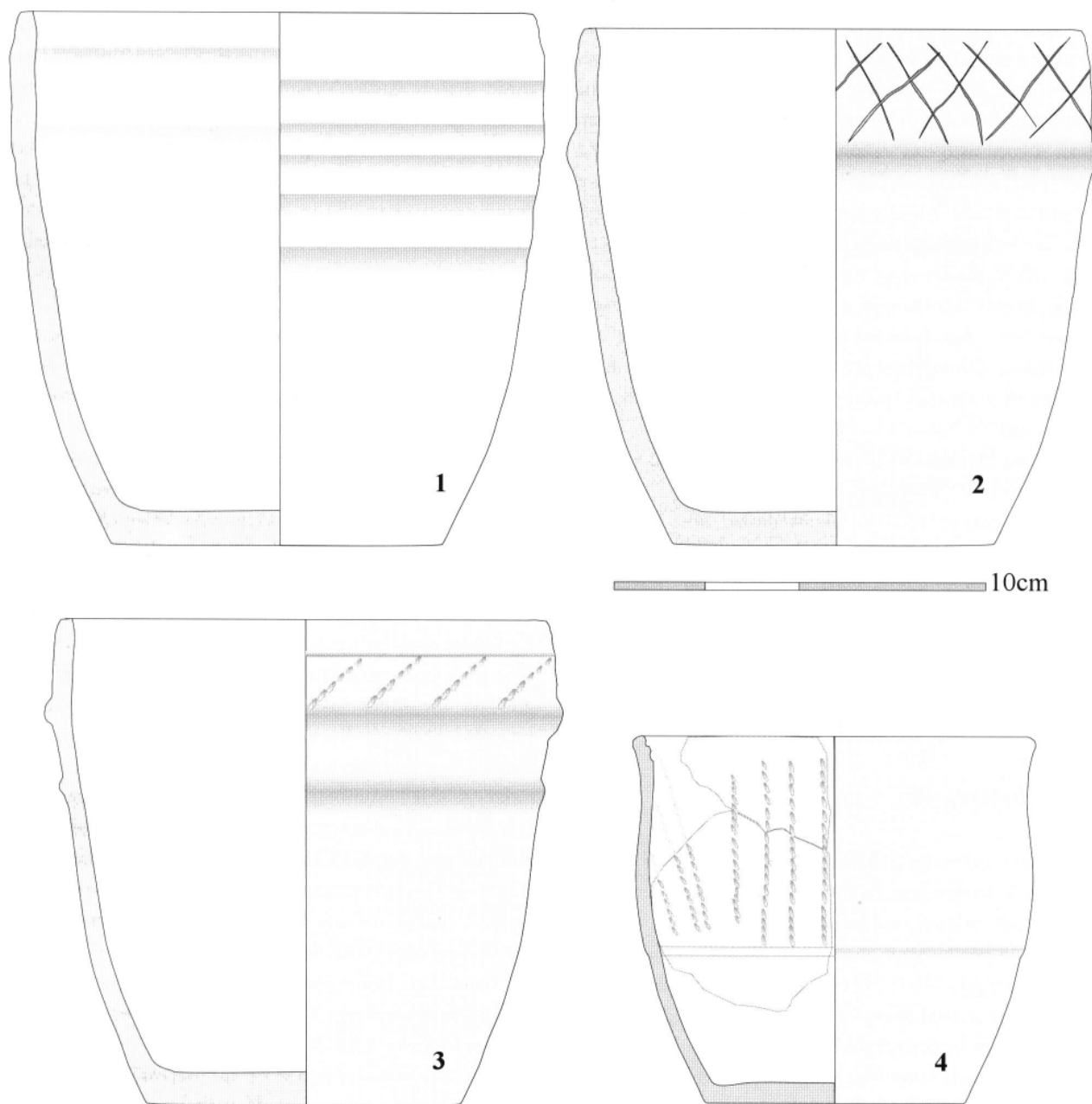


Fig. 2—Domestic cordoned urns: **1** Lough Gur, Site C, Co. Limerick (Ó Riordáin 1954, fig. 17: 1); **2** Lough Gur, Site C 1949 (Ó Riordáin 1954, pl. 34: 7); **3** Lough Gur, Site C 1949 (Ó Riordáin 1954, pl. 35: 1); **4** Ballybrowney Lower 1, Co. Cork (Cotter 2005; Roche and Grogan 2005).

convex profile; the majority of vessels with possible size estimates are *c.* 16–21cm in rim diameter, with probably similar heights, and a base diameter of *c.* 13–16cm. Although the range of vessels at Knockhouse is unusual, smaller tub-like vessels are an occasional feature of other assemblages at, for example, Ballybrowney and Scartbarry.

Another variant of the domestic cordoned urn is represented at Lough Gur and Knowth. These are large bucket-shaped vessels with rim diameters of over 28cm and closely spaced shallow rilled decoration forming broad bands beneath the rim (Eogan 1984, 260, figs 89 and 91, pl. 75: 418; Ó Ríordáin 1954, 340—‘finger corrugations’, figs 17: 1 and 18: 10). It is probable that these are a replication of the more pronounced cordons on other vessels.

Dating

Reasonably extensive dating indicates a range of *c.* 1750–1400 cal. BC for cordoned urn burials but a slighter longer currency, perhaps down to the beginning of the late Bronze Age, for the domestic variant. The dates from Cloghabreedy of 1666–1494 cal. BC (UB-7172, 3290 ± 34) from structure A, 1427–1268 cal. BC (UB-7171, 3084 ± 35) from structure D and 1604–1414 cal. BC (UB-7173, 3213 ± 35) from structure B (McQuade *et al.* 2009) provide important new data for this phase of the Bronze Age. Knockhouse Lower is dated to *c.* 1400–1130 BC (UB-6935: Richardson and Johnson 2007, 7), while there is a date of 1700–1430 BC from Ballinaspig More (Ed Danaher, pers. comm.).

Fine ware

Vessels with unusually fine finishes and elaborate, occasionally complex, ornament have come from four sites—Knowth concentration A, Co. Meath (Eogan 1984, 256, fig. 89: 1339–1403, pl. 75), Rathgall, Co. Wicklow (Barry Raftery, pers. comm.; Roche, forthcoming), Lough Gur (Site C: Ó Ríordáin 1954, fig. 17: 3–6, 8; Circle L: Grogan and Eogan 1987, 407, fig. 44: 879), and Ballinaspig More (Danaher 2004; Grogan and Roche 2004a). The use of comb-impressed ornament and tightly arranged basket patterns might indicate an influence from late Vase Tradition contexts, although the pottery is recorded in such small quantities that its development is very incompletely understood. Dates for this material come from Knowth

(BM-1077, 1510–1310 BC) and Ballinaspig More (1700–1430 BC).

Plain ware

The most significant development in our understanding of late prehistoric ceramics is the identification of plain, undecorated coarseware pottery dating from the later stages of the middle Bronze Age. While it had been clear that plain domestic pottery began to dominate by the end of this period, the analysis and dating of the large domestic assemblage at Corrstown, Co. Derry, and the cemeteries at Darcytown (two sites), Co. Dublin, and Priestsnewtown, Co. Wicklow, have demonstrated the appearance of this material in the middle Bronze Age by *c.* 1500 BC (Roche and Grogan 2008; Wiggins 2005; Carroll 2004; Tobin *et al.* 2004; Grogan and Roche 2007b; 2007c; 2004b).

Such material had been identified extensively in east Limerick at, for example, Duntryleague, Mitchelstowndown North, Shanaclogh and Raheen (Gowen 1988; Grogan 1988). These were dated to within the middle Bronze Age (*c.* 1650–1250 BC) and appear to represent the emergence of coarse domestic vessels from a background of domestic cordoned urns. These are comparatively thin-walled vessels with flat, unfooted bases and straight-sided, narrow bucket-shaped profiles. The rims are simple and can be rounded, pointed or slightly flattened (Fig. 3). Many of these east Limerick vessels are carelessly fashioned, with uneven surfaces and irregular profiles. They come from both domestic (e.g. Raheen and Ballynatona; Gowen 1988, 84–94, 103–05) and funerary contexts (e.g. Shanaclogh, Duntryleague and Mitchelstowndown North; Gowen 1988, 68–72, 72–78, 98–103); the Raheen pottery was associated with a stone palstave mould (Gowen 1988, 92–93, fig. 45).

Pottery of much finer quality and firing came from the cemeteries of Darcytown 1 and 2 and Priestsnewtown. These intact vessels were either upright or inverted and contained cremations (Fig. 4). They have rounded to flattened or occasionally faceted rims, bucket-shaped to slightly biconical profiles, and unfooted or slightly footed flat bases. Although from funerary contexts, sooting or blackened accretions indicated that they had previously been used on domestic sites. A particular closed form (where the rim diameter is less than that of the body) with a sharply inturned upper profile occurred at Darcytown 2 (Fig. 4: 5–6): identical vessels occurred within a kerbed cairn at Circle P, Lough Gur

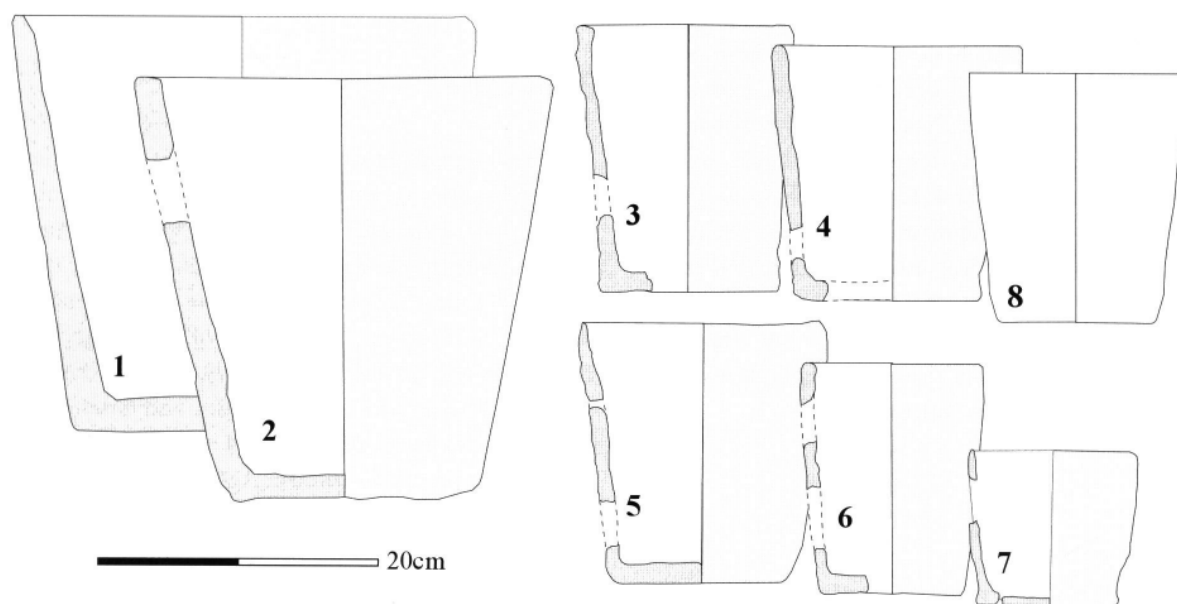


Fig. 3—Middle Bronze Age plain ware vessels: **1** Athgarret, Co. Kildare (Sleeman and Cleary 1987, fig. 4.2); **2** Monknewtown, Co. Meath (Sweetman 1976, fig. 5); **3–4** Raheen, Co. Limerick (Gowen 1988, fig. 43: 20a–b); **5–6** Duntryleague, Co. Limerick (Gowen 1988, fig. 35); **7** Ballynatona, Co. Limerick (Gowen 1988, fig. 53); **8** Kilbane, Co. Limerick (Grogan and Roche 2004c).

(Grogan and Eogan 1987, 498–501, fig. 79, pl. 23), and at an apparently flat cemetery at Knockaholet, Co. Antrim (Henry 1934) (Fig. 4: 7 and 9–10). Intact funerary vessels from sites like Athgarret, Co. Kildare (Sleeman and Cleary 1987, fig. 4.2), and Kilbane, Co. Limerick (O’Callaghan 2006; Grogan and Roche 2004c), with similar forms to those from the east Limerick sites (Fig. 3: 1 and 8) may indicate a wider occurrence of this pottery.

One of the interesting features of the Knockhouse pottery identified by Brindley (2007b, 13) is the occurrence of vestigial shoulders on some of the vessels. At Williamstown, Co. Waterford, a poorly made bucket-shaped domestic vessel appears to have been inverted in a pit (Grogan and Roche 2008c). While it may have been deposited over a disturbed burial, there is evidence that it had been used for domestic cooking. The pot has an unusual slight cavetto neck, although this can be paralleled by late Bronze Age examples from such sites as Aghnaskeagh, Co. Louth (Evans 1938), and Dún Aonghasa, Aran More, Co. Galway (Cotter 1993). It is possible that these constricted necks were functional and

designed to replace the cordons as a means of securing hide or cloth lids on the pots (Grogan 2005; Raftery 1995).

The Corrstown assemblage

At least 449 middle Bronze Age vessels associated with over 70 houses were identified from Corrstown, Co. Derry, representing the largest assemblage of this type of pottery found in Ireland (Roche and Grogan 2008). There is a broad range of dates from the site, with the majority centred on the middle Bronze Age (1500–1200 BC). The bulk of the assemblage was undecorated, with just 83 vessels showing evidence for incised, grooved and rilled decoration and the application of cordons, suggesting that these vessels share their origin in the cordoned urn funerary tradition. A group of 42 vessels had a rather unusual feature consisting of a single or occasionally two shallow horizontal indentations immediately below the rim; though not strictly a decorative motif, it appears to be ornamental rather than representing a

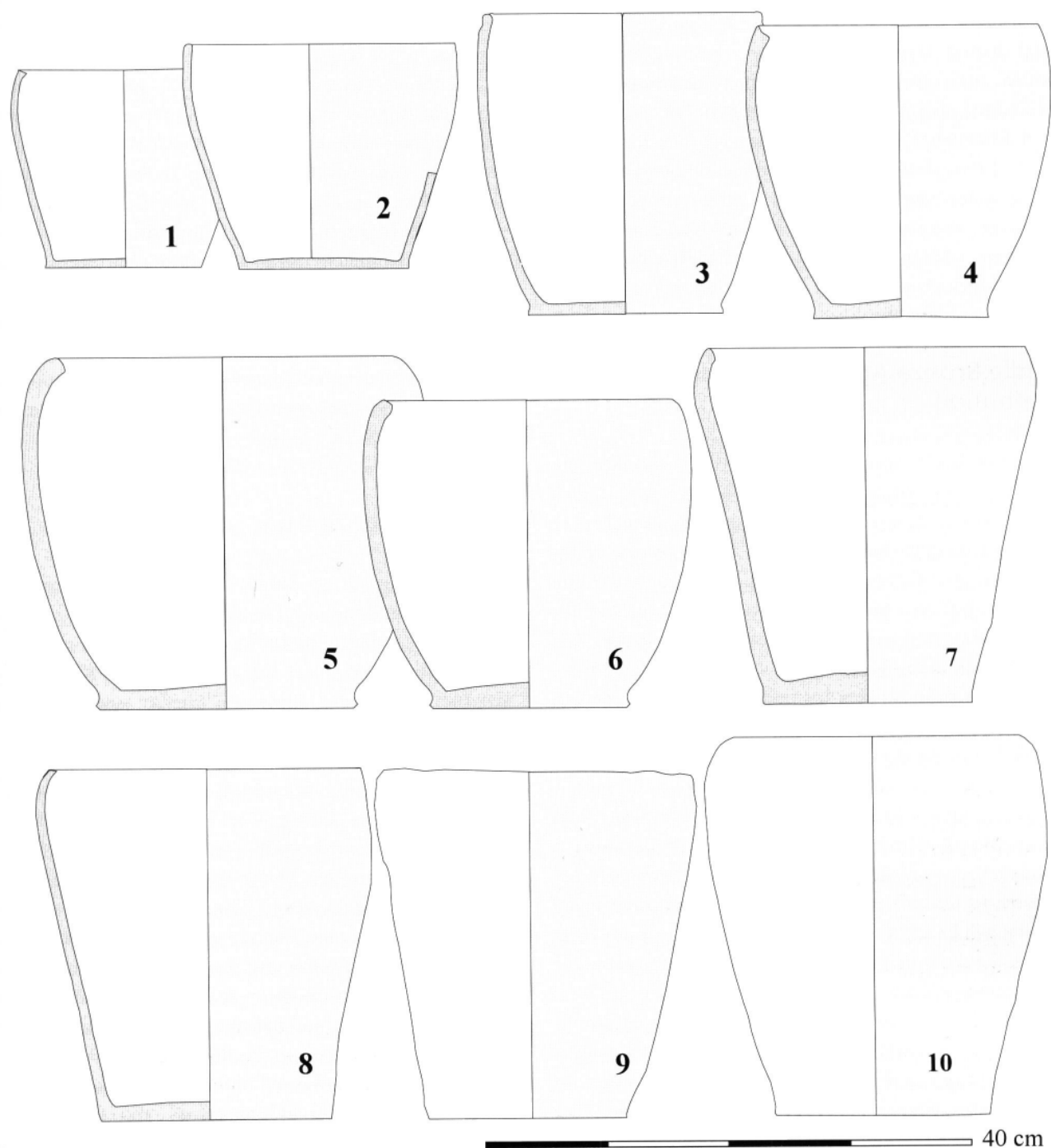


Fig. 4—Middle Bronze Age plain ware vessels: **1–2, 8** Priestsnewtown, Co. Wicklow (Grogan and Roche 2004b); **3–6** Darcytown 2, Co. Dublin (Grogan and Roche 2007c); **7** Lough Gur, Circle P, Co. Limerick (Grogan and Eogan 1987, pl. 23); **9–10** Knockaholet, Co. Antrim (Henry 1934, pl. 28: 1–2).

functional element. At first glance, the large number of plain ware vessels could be mistaken for late Bronze Age flat-based, barrel-shaped coarseware. Under closer examination, however, and especially in comparing the decorated and undecorated examples, certain fabric differences can be noted from what is accepted as typical late Bronze Age pottery. Fabric details that were particularly significant were the chalky-textured surfaces and the loose-textured matrices that were consistent within the middle Bronze Age assemblage, a feature not identified in Irish late Bronze Age pottery, which generally has a harder, gritty matrix.

Middle Bronze Age domestic pottery: distribution

It is immediately apparent that the distribution of this material is surprisingly restricted, with a particular concentration in Leinster and mid- to east Munster (Fig. 1). While it is possible that this reflects a true picture of the prevalence of the pottery, a number of important contributory factors need to be considered. Much of the material recognised recently has come from major road schemes, such as the M3, N11, N8/M8, M7 and M25; the pottery from these projects has been the subject of modern study based on a much more extensive understanding of prehistoric pottery than had previously been available. Some older material had already been identified as of middle Bronze Age date—such as the domestic assemblage from Downpatrick—while pottery from some other sites, such as the major assemblages from Lough Gur, was readily amenable to reclassification. There is no doubt that many new sites will be revealed through archival research as well as through the dissemination of excavation reports from recent development schemes.

Nevertheless, the current distribution pattern is interesting. Aside from the major settlements at Corrstown and Downpatrick, and the Knockaholet burial, there are no other identified sites in Ulster. This is surprising given that the probable background for the development of these domestic wares is within the collared, and especially the cordoned, urn traditions. The major concentration of both these types is in the north-east, particularly in counties Antrim, Derry, Down and Tyrone. While collared urns, however, have a limited distribution outside this area, cordoned urns are well represented in Leinster and in mid- to east Munster. There is, as yet, no reason to assign primacy

of origin of the domestic cordoned urns to this area, although it is, at present, evident that they attained a greater currency in this region.

Without extensive further research into middle Bronze Age plain wares it is not possible to determine how much material previously classed as late Bronze Age coarse pottery might be reassessed as belonging to an earlier period. Nevertheless, the distribution of the later pottery, while slightly more extensive, including sites in the north midlands, Connacht and south-west Munster, is also concentrated in the regions that have produced the most extensive middle Bronze Age material. The identification of the plain wares of the middle Bronze Age is, at present, largely restricted to well-dated funerary contexts—such as Darcytown and Priestsnewtown—and the major domestic assemblage from Corrstown.

The late Bronze Age

It is clear that pottery production in the late Bronze Age increased significantly, and its distribution is more extensive than in the earlier period. This material is part of a more extensive study by one of the authors (Helen Roche). The material comes from domestic, funerary and ceremonial contexts. It is evident from some well-dated contexts that some vessel types, such as the fine bucket-shaped pots from Darcytown and Priestsnewtown, continue into the late Bronze Age, as at Carrig, Co. Wicklow (Grogan 1990). Indeed, this kerbed cairn, with burials successively accompanied by vessels of the Food Vessel and Cordoned Urn Traditions—including a domestic variant—as well as final Bronze Age plain coarseware pots, demonstrates an element of ceramic continuity through most of the Bronze Age. Very similar forms occur at Lough Gur, Rathgall and Kilbane, for example, and indicate the survival of plain ware types that had originated in the middle Bronze Age.

At, or soon after, the end of the Bronze Age (c. 800 BC) pottery production in Ireland ceased, and this material appears to have been replaced by vessels of leather and wood (Raftery 1995). The process, or indeed the reason, behind this dramatic alteration in the material assemblage is unknown, but the fact remains that there is no definitely attributable pottery from the Irish Iron Age. Whether these changes occurred gradually or abruptly is also unclear, but it is possible that some regions abandoned pottery manufacture at an earlier stage than others.

Note

- (1) There is an important unpublished and more extensive version of this report (Brindley 2005).

References

- ApSimon, A. 1969 The earlier Bronze Age in the north of Ireland. *Ulster Journal of Archaeology* 32, 28–72.
- Brindley, A. 1980 The Cinerary Urn tradition in Ireland—an alternative interpretation. *Proceedings of the Royal Irish Academy* 80C, 197–206.
- Brindley, A.L. 2005 Report on the prehistoric pottery from an excavation at Knockhouse Lower, Co. Waterford (03E1033). Unpublished report for Eachtra Archaeological Projects.
- Brindley, A. 2007a *The dating of food vessels and urns in Ireland*. Bronze Age Studies 7. Department of Archaeology, National University of Ireland, Galway.
- Brindley, A.L. 2007b Prehistoric pottery from Knockhouse Lower, Co. Waterford (03E1033). In A. Richardson and P. Johnson, 'Excavation of a Middle Bronze Age settlement site at Knockhouse Lower, Co. Waterford'. *Decies* 63, 12–13.
- Carroll, J. 2004 The excavation of a ringditch at Darcytown, Balrothery, Co. Dublin (04E0741). Unpublished report for Fingal County Council.
- Cleary, R. 1995 Later Bronze Age settlement and prehistoric burials, Lough Gur, Co. Limerick. *Proceedings of the Royal Irish Academy* 95C, 1–92.
- Cotter, C. 1993 Western Stone Fort Project. Interim report 1992. *Discovery Programme Reports* 1, 1–19.
- Cotter, E. 2005 Bronze Age Ballybrowney, Co. Cork. In J. O'Sullivan and M. Stanley (eds), *Recent archaeological discoveries on national road schemes 2004*, 25–35. Archaeology and the National Roads Authority Monograph Series 2. Dublin. National Roads Authority.
- Danaher, E. 2004 Ballinaspig More 5, Co. Cork. In I. Bennett (ed.), *Excavations 2002*, 55–6. Bray. Wordwell.
- Doody, M. 1987 Ballyveelish, Co. Tipperary. In R. Cleary *et al.* (eds), *Archaeological excavations on the Cork–Dublin Gas Pipeline (1981–82)*, 9–21. Cork Archaeological Studies No. 1. University College, Cork.
- Eogan, G. 1984 *Excavations at Knowth, I*. Dublin. Royal Irish Academy.
- Evans, E.E. 1938 Aghnaskeagh Cairn B, Co. Louth. *County Louth Archaeological Journal* 9, 1–18.
- Fitzpatrick, M. 1998 Johnstown South Enclosure. In I. Bennett (ed.), *Excavations 1997*, 199–200. Bray. Wordwell.
- Gowen, M. 1988 *Three Irish gas pipelines: new archaeological evidence in Munster*. Dublin. Wordwell.
- Grogan, E. 1988 The pipeline sites and the prehistory of the Limerick area. In M. Gowen, *Three Irish gas pipelines: new archaeological evidence in Munster*, 148–57. Dublin. Wordwell.
- Grogan, E. 1990 Bronze Age cemetery at Carrig, Co. Wicklow. *Archaeology Ireland* 16, 12–14.
- Grogan, E. 2004 Middle Bronze Age burial traditions in Ireland. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metals. Essays in honour of George Eogan*, 61–71. Oxford. Oxbow.
- Grogan, E. 2005 Appendix C. The pottery from Mooghaun South. In E. Grogan, *The later prehistoric landscape of south-east Clare*, 317–28. Discovery Programme Monograph 6, Vol. 1. Dublin. The Discovery Programme/Wordwell.
- Grogan, E. and Eogan, G. 1987 Lough Gur excavations by Seán P. Ó Ríordáin: further Neolithic and Beaker habitations on Knockadoon. *Proceedings of the Royal Irish Academy* 87C, 299–506.
- Grogan, E. and Roche, H. 2004a The prehistoric pottery from Ballinaspig More 5, Ballincollig, Co. Cork. Unpublished report for Archaeological Consultancy Services Ltd.
- Grogan, E. and Roche, H. 2004b The prehistoric pottery from Site 6B, Priestsnewtown, Greystones, Co. Wicklow. Unpublished report for Judith Carroll and Co.
- Grogan, E. and Roche, H. 2004c The prehistoric pottery from Kilbane, Castletroy, Co. Limerick. Unpublished report for Eachtra Archaeology Ltd.
- Grogan, E. and Roche, H. 2007a The prehistoric pottery assemblages from the N11 Rathnew–Arklow Project. Coolcork, Co. Wicklow (A022/063). Unpublished report for Irish Archaeological Consultancy Ltd.
- Grogan, E. and Roche, H. 2007b The prehistoric pottery assemblage from Darcytown 1, Balrothery, Co. Dublin (03E0067/03E0067 extension). Unpublished report for Judith Carroll and Co.

- Grogan, E. and Roche, H. 2007c The prehistoric pottery assemblage from Darcytown 2, Lusk Road, Balrothery, Co. Dublin (04E0741). Unpublished report for Judith Carroll and Co.
- Grogan, E. and Roche, H. 2008a N11 Gorey–Arklow Link Road, Co. Wexford. The prehistoric pottery assemblage from Ask, Co. Wexford (A003/020, E3502). Unpublished report for Valerie J. Keeley Ltd.
- Grogan, E. and Roche, H. 2008b The prehistoric pottery assemblage from Adamstown, Co. Waterford (03E1215–17). The N25 Waterford Bypass Alternative Route. Unpublished report for Archaeological Consultancy Services Ltd.
- Grogan, E. and Roche, H. 2008c The prehistoric pottery from Williamstown, Co. Waterford (03E1755). N25 Waterford Bypass. Unpublished report for Headland Archaeology Ltd.
- Grogan, E. and Roche, H. 2009 The prehistoric pottery. In M. McQuade, B. Molloy and C. Moriarty, *In the shadow of the Galtees: archaeological excavations along the N8 Cashel to Mitchelstown road scheme*, 288–314. Dublin. National Roads Authority.
- Hawkes, J. 1941 Excavation of a megalithic tomb at Harristown, Co. Waterford. *Journal of the Royal Society of Antiquaries of Ireland* 71, 130–47.
- Hencken, H. O'Neill and Movius, H.L. 1934 The cemetery cairn at Knockast. *Proceedings of the Royal Irish Academy* 41C, 232–84.
- Henry, S. 1934 A find of prehistoric pottery at Knockaholet, parish of Loughguile, Co. Antrim. *Journal of the Royal Society of Antiquaries of Ireland* 64, 264–5.
- Kavanagh, R. 1976 Collared and Cordoned Urns in Ireland. *Proceedings of the Royal Irish Academy* 76C, 293–403.
- McQuade, M., Molloy, B. and Moriarty, C. 2009 *In the shadow of the Galtees: archaeological excavations along the N8 Cashel to Mitchelstown road scheme*. Dublin. National Roads Authority.
- O'Callaghan, N. 2006 Kilbane, Castletroy. Bronze Age flat cemetery and *fulachta fiadh*. In I. Bennett (ed.), *Excavations 2003*, 309–10. Bray. Wordwell.
- Ó Ríordáin, S.P. 1940 Excavations at Cush, Co. Limerick. *Proceedings of the Royal Irish Academy* 45C, 83–181.
- Ó Ríordáin, S.P. 1954 Lough Gur excavations: Neolithic and Bronze Age houses on Knockadoon. *Proceedings of the Royal Irish Academy* 56C, 297–459.
- Pollock, A. and Waterman, D. 1964 A Bronze Age habitation site at Downpatrick. *Ulster Journal of Archaeology* 27, 31–58.
- Raftery, B. 1995 The conundrum of Irish Iron Age pottery. In B. Raftery (ed.), *Sites and sights of the Iron Age*, 149–56. Oxford. Oxbow.
- Richardson, Á. and Johnson, P. 2007 Excavation of a Middle Bronze Age settlement site at Knockhouse Lower, Co. Waterford. *Decies* 63, 1–17.
- Roche, H. (forthcoming) The prehistoric pottery from Rathgall. In B. Raftery, *The hillfort at Rathgall*. School of Archaeology, UCD/Wordwell.
- Roche, H. and Grogan, E. 2005 The N8 Rathcormac–Fermoy Bypass. The prehistoric pottery. Unpublished report for Archaeological Consultancy Services Ltd.
- Roche, H. and Grogan, E. 2008 The prehistoric pottery from Corrstown, Co. Derry. Unpublished report for Archaeological Consultancy Services Ltd.
- Sleeman, M. and Cleary, R. 1987 Pottery from Athgarret, Co. Kildare. In R. Cleary, M. Hurley and E. Twohig (eds), *Archaeological excavations on the Cork–Dublin Gas Pipeline*, 43–4. Cork Archaeological Studies 1. Department of Archaeology, University College, Cork.
- Stevens, P. 2007 Preliminary report. Archaeological excavations (A003/020, E3502) Ask Sites 42, 43 and 44. N11 Gorey to Arklow Link, Co. Wexford. Unpublished report for Valerie J. Keeley Ltd.
- Sweetman, P.D. 1976 An earthen enclosure at Monknewtown, Slane, Co. Meath. *Proceedings of the Royal Irish Academy* 76C, 25–72.
- Tobin, S., Swift, D. and Wiggins, K. 2004 Greystones Southern Access Route (GSAR), Co. Wicklow. Sites 6/6a–g, Priestsnewtown. Excavation report. Licence no. 04E0401. Unpublished report by Judith Carroll and Co. for Wicklow County Council.
- Waddell, J. 1995 The Cordoned Urn tradition. In I. Kinnes and G. Varndell (eds), *'Unbaked urns of rudely shape'*, 113–22. Oxford. Oxbow.
- Wiggins, K. 2005 Excavations at Glebe South, Balrothery, Co. Dublin (04E0680). Unpublished report by Judith Carroll and Co. for Fingal County Council.

The golden mask from the unknown

Mitja Guštin

Barry Raftery and I both studied at the University of Marburg/Lahn with Professor Wolfgang Dehn in the 1969/70 academic year. Those were extraordinary times, when my friendship with Barry, who had all the qualities of an Irishman (a middle-distance runner, footballer and, naturally, romantically in love with his Nuala), was also enhanced by our numerous academic common interests, especially in the field of the Iron Age and Celtic heritage. Thus, several years later, our friendship also led me to Dublin and its National Museum, whose halls groan under the weight of golden witnesses of prehistoric times, unlike most other museums.

On the occasion of this celebration of Barry's career, I would like to shed new light on the golden human face-mask from the Burgmuseum in Deutschlandsberg (Fig. 1). The origin of this mask is unknown; it came to the museum in the 1990s through the antiquities trade, a business that flourished as a result of the wars in the western Balkans. The mask is 14.7cm high and 11.3cm wide, made from carefully cut, beaten out and filed gold sheet metal. The face has round eyes with accentuated eyelids, a long, well-defined nose and tightly closed lips under which is a strongly defined chin. The arched eyebrows are marked out by numerous cuts running from the middle to the sides; the top of the mask is ornamented by small locks of hair.

The mask was first published in 1998 in the exhibition catalogue of the *Gebrüder Steffan Fund (Kelten 1998, 36)* with the subtitle *Ostkeltische Totenmaske aus Goldblech, 5.-4. Jh. v. Chr.* The subsequent presentation of the Deutschlandsberg golden mask was at the well-known exhibition dedicated to Celtic culture and heritage in Castello di Gorizia and published in its exhibition catalogue (*Echi della Terra 2002, 87, fig. 86*).

In the same catalogue (*ibid.*, fig. 85) a remarkable bronze plate, 26.3cm high and 21.5cm wide, with a depiction of a human face in the style of a Greek comedy, wearing a typically Celtic twisted torc, from the same collection of the Burgmuseum Deutschlandsberg is also published (see also Guštin 2006, 127–8, Abb. 6). This plate—which, like the golden mask, is of unclear provenance—is important because it emulates perfectly the

silver panels of the famous Gundestrup cauldron and leads us to believe that such copper and silver sheet-metal cauldrons with elaborate motifs on the rim were in circulation (Kaul and Martens 1995; Olmsted 2001, 58–61).

The meaning of face-masks and their function of accompanying notable dignitaries into the Otherworld has been extensively discussed many times, especially with regard to the Mycenaean and Egyptian golden masks, and lately the discoveries of funeral masks in the Balkans (e.g. Behn 1955; Theodossiev 1998; 2000). Our discussion of the golden mask from the Burgmuseum Deutschlandsberg collection therefore seeks only to review the period of its origin and to attempt to show the potential cultural environment in which the mask could have been in use, while briefly recognising the traditions of the use of face-masks as funeral masks to symbolically depict the deceased, or in cult practice to symbolically depict heroes or gods.

All in all, the making of a face-mask from bronze or precious metals was quite a frequent occurrence in the first millennium BC in Europe:

- either attached to an urn (e.g. Chiusi),
- or as grave-goods in the sense of a funeral mask laid on the deceased's face, on a shroud or a coffin (Trebeništa, Ohrid, Sindos and Pella),
- or as a metal face, fixed to a wooden or stone base, thus becoming part of a statue dedicated to an ancestor, hero or deity (e.g. Kleinklein, Hirschlanden, Capecrano, Blicquy and Bath).

The bronze face-masks from Chiusi date from the beginning of the Iron Age and functioned as bronze urn decorations, obviously representing the deceased (Siegfried-Weiss 1979, 114–17). The bronze mask and hands from Kleinklein, which had been attached to a wooden base, date from the beginning of the sixth century BC. They can be compared to Etruscan 'ancestor masks' on the one hand and to stone statues with depicted masks from Capecrano and Hirschlanden on the other (Egg and Kramer 2005, 18–21; Teržan 2007, 46).

The practice of placing funeral masks on the deceased's face was particularly frequent in ancient Macedonia of the



Fig. 1—The golden mask from the Burgmuseum Deutschlandsberg collection.

sixth and fifth centuries BC. As a constituent part of the grave furnishings, funerary face-masks or golden foliage covering the eyes and mouth have long been known in great numbers from Trebeništa near Ohrid, Beranci near Prilep, Sindos near Thessalonica, and some sites in Macedonia and Halkidiki (Filow 1927; Vokotopoulou *et al.* 1985; Garašanin 1997; Theodossiev 1998; 2000; Proeva 2006, 566–70; 2007). In recent times, according to media reports, dozens of new graves containing golden masks have come to light from the sites around the royal capital of Pella. Some of the warriors bear golden foliage on their faces, and even the fronts of their Greco-Illyrian helmets are often trimmed with gold sheet metal (Pella 2003; 2005; 2008; Kuzman 2006, 559, ph. 25).

Likewise, special attention should be paid to the most recent find from grave 132 at Ohrid, also containing a characteristic funeral mask and human palm made from thin gold sheet in the Trebeništa style, among other valuable grave-goods. In September 2002, practically in the middle of

today's city centre, in the area of the Gorna Porta on the opposite slope of the ancient Lychnidos citadel, a group of tombs came to light with contents that in many respects connect the archaic graves of chieftains from the northern edge of Lake Ohrid with those of élite warriors from the hinterland of the Gulf of Thessalonica (Kuzman 2006).

Not only the occurrence and meaning of the golden funeral mask but also the pottery, and especially the metalwork, from these tombs in Ohrid are significant. The presence, for example, of a typical chariot model of iron sheet metal in Ohrid, primarily characteristic of graves in Sindos (Kuzman 2006, 546; cf. Theodossiev 2000, 188–91), clearly shows the close connection between both territories and is an expression of a firm common identity at the material as well as at the spiritual level of the élites at the end of the sixth century BC in the area between Thessalonica and Ohrid (Proeva 2006; 2007). This, of course, was ancient Macedonia's Golden Age, when this region was a constituent part of the well-developed eastern Mediterranean, especially the Greek civilisation. At the same time, ancient Macedonia was the ideal upon which Iron Age communities in the western Balkans modelled themselves and, consequently, developed a social structure which is best mirrored in the valuables of notable élite graves, as at Novi Pazar, Atenica and Pečka Banja (*Keltoi* 1983, 26–32; Palavestra 1984).

Where does the golden mask kept at the Burgmuseum Deutschlandsberg fit into all this?

There are also reports from websites from the adjacent Bulgarian territory about finds of face-masks (e.g. Šipka 2006a; Topolčane 2007). A golden mask of 23-carat gold weighing almost 700g from the Svetica/Goljamata Kosmatka tumulus in the Valley of Kings near Šipka should also be included in the group of funeral masks (Šipka 2006b). The excavator, Georgij Kitov, attributes it to a Thracian king or hero from the fifth century BC (Kitov 2005). In any case, the mask reflects the exceptional quality of gold-working and the making of a negative mould, known at this time from the products of the workshops of Thracian and Scythian tribes in the hinterland of the Black Sea coast, as well as from the exceptional and rich golden objects in the Panagjurište hoard from the end of the fourth or third century BC (Zontschew 1959).

In great contrast to this is the simple sheet-metal golden mask from the Dalakova tomb near Topolčani, ascribed to the fourth century BC. The main facial features of the eyes, brows, nose and mouth on this mask are made from lines of embossed dots, while the overall concept of the face seems

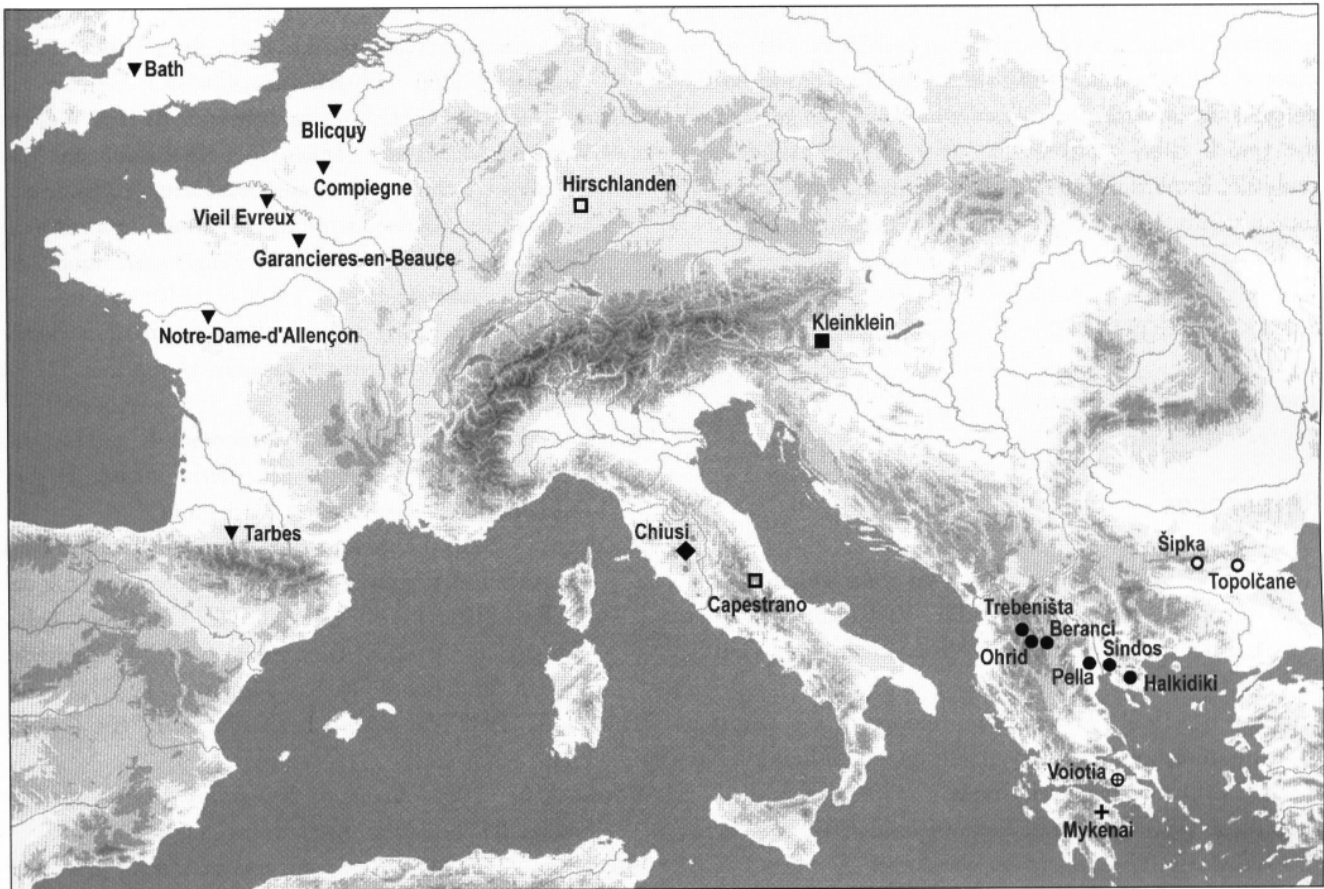


Fig. 2—European funeral and cult masks.

Cross: Mycenaean gold funeral masks; cross in circle: Boeotian gold mask; circle: Macedonian gold funeral masks; hollow circle: Thracian gold funeral masks; diamond: Etruscan bronze masks on urns; square: Hallstatt-period bronze ancestor mask; hollow square: masks depicted on Hallstatt-period statues; triangle: Gallo-Roman bronze cult masks (compiled and mapped by Andrej Preložnik).

more in the tradition of the Trebenište type (Topolčane 2007).

In contrast to the Balkan region, numerous examples of human masks can be found across western Europe. Mostly these are geographically, chronologically and contextually isolated finds of metal masks, such as the bronze masks from Tarbes in the Pyrenees (Lantier 1947), Blicquy in the Belgian province of Hainaut (Kruta *et al.* 2006) and Vieil-Evreux (Duval and Heude 1983, no. 252), two silver masks from Notre-Dame-d'Allençon, two bronze masks from the Compiègne forest, Garancières-en-Beauce (Olmsted 2001, pls 13, 17, 60, 61), as well as a tin example from Bath (Cunliffe 1969, 66, no. 3, pl. XI; 1988, no. 3, pl. IV), all belonging to the period of the fourth- to first-century BC La Tène civilisation.

They are not, however, connected to funeral rites but rather were used in cult practice. These masks can safely be said to belong to the iconography of deities or heroes of the western Celtic world, also confirmed in some cases by their occurrence in temples or near sacred springs. The best comparisons for them can be found in the bronze sculptures from Saint-Marie-en-Chausse and the Bouray deity (Olmsted 2001, pls 50, 59, 60).

Where does the golden mask kept at the Burgmuseum Deutschlandsberg fit into all of this? The holes indicate that the mask was affixed to something—perhaps to a coffin or shroud to depict the deceased, as was usual in ancient Macedonia, or to some organic or metal surface for cult purposes, as is known from the western world. Nevertheless, in its artistic appearance, the elongated forms and the finely

indicated brows and locks, it differs considerably from the numerous Trebeništa-type masks and foliages. We see it more as a distant echo of the workshops that produced the precious Šipka mask, the style of which can also be seen on the (much later) main human face on the Gundestrup cauldron. Perhaps this very mask is the last representative of their use in funeral and cult practice in the Balkan area.

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References

- Behn, F. 1955 *Vorgeschichtliches Maskenbrauchtum*. Leipzig. Berichte über die Verhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig 102:1.
- Cunliffe, B. 1969 *Roman Bath*. Reports of the Research Committee of the Society of Antiquaries of London No. XXIV. Oxford University Press.
- Cunliffe, B. (ed.) 1988 *The Temple of Sulis Minerva at Bath, Volume 2: The finds from the Sacred Spring*. OUCA Monograph 16. Oxford.
- Duval, A. and Heude, D. (eds) 1983 *L'art celtique en Gaule. Collections des musées de Province*. Paris. Direction des Musées de la France.
- Echi della Terra 2002 *Gli Echi della Terra. Cultura celtica in Friuli: dati materiali e momenti dell'immaginario*. Pisa/Roma. Giardini.
- Egg, M. and Kramer, D. 2005 *Krieger—Feste—Totenopfer. Der letzte Hallstattfürst von Kleinklein in der Steiermark*. Mosaiksteine 1. Mainz. Römisch Germanisches Zentralmuseum.
- Filow, D.B. 1927 *Die archaische Nekropole von Trebenište am Ochrida-See*. Berlin/Leipzig. Walter de Gruyter.
- Garašanin, M. 1997 Zur Deutung der Masken in reichen Gräbern aus Mazedonien. *Godišnjak Centra za balkanološka ispitivanja* 28, 59–68. Sarajevo.
- Guštin, M. 2006 Zu einigen Figuralmotiven im Gebiet der Tauriskier. In W.-R. Teegan, R. Cordie and O. Dörrer (eds), *Studien zur Lebenswelt der Eisenzeit, Festschrift für Rosemarie Müller*, 115–31. Berlin/New York. Walter de Gruyter.
- Kaul, F. and Martens, J. 1995 Southeast European influences in the Early Iron Age of Southern Scandinavia. Gundestrup and the Cimbri. *Acta Archaeologica* 66, 111–61.
- Kelten 1998 *Die Kelten im südweststeierischen Teil des Königreiches Norikum*. Steierisches Kuratorium für Vor- und Frühgeschichte, Burgmuseum Deutschlandsberg.
- Keltoi 1983 *Keltoi in njihovi sodobniki na ozemlju Jugoslavije/Die Kelten und ihre Zeitgenossen*. Ljubljana. Narodni muzej.
- Kitov, G. 2005 Rich grave in Svetitsa tumulus. *Studia Archaeologica Universitatis Serdecensis*, suppl. 4, 422–6. Sofija.
- Kruta, V., Leman-Deliverie, G., Warmembol, E. and Laanan, F. (eds) 2006 *Celtes, Belges, Boïens, Rèmes, Volques*. Mariemont. Musée Royal de Mariemont.
- Kuzman, P. 2006 Le masque funéraire en or d'Ohrid dans le contexte des trouvailles identiques du cercle culturel de Trebeništa. In N. Tasić and C. Grozdanov (eds), *Homage to Milutin Garašanin*, 545–59. Belgrade. Serbian Academy of Sciences and Arts.
- Lantier, R. 1947 *Les origines de l'art français*. Paris. Guy Le Prat.
- Olmsted, G. 2001 *Celtic art in transition during the first century BC*. Budapest. Archaeolingua.
- Palavestra, A. 1984 *Kneževski grobovi starijeg gvozdenog doba na centralnom Balkanu* [Princely tombs during the early Iron Age in the Central Balkans]. Posebna izdanja 19. Beograd. Balkanološki institut SANU.
- Pella 2003 <http://www.ekathimerini.com/4dcgi/news/content.asp?aid=33327>
- Pella 2005 <http://www.ekathimerini.com/4dcgi/news/content.asp?aid=53313>
- Pella 2008 <http://news.nationalgeographic.com/news/2008/09/080911-gold-photo.html>
- Proeva, N. 2006 The Engelenes/Encheleis and the golden mask from the Trebenište Culture. In N. Tasić and C. Grozdanov (eds), *Homage to Milutin Garašanin*, 561–70. Belgrade. Serbian Academy of Sciences and Arts.
- Proeva, N. 2007 Who were the authors of the Trebenište culture and the gold funeral masks. <http://micnews.com.mk/node/8020>
- Siegfried-Weiss, A. 1979 *Der Ostalpenraum in der Hallstattzeit und seine Beziehungen zum Mittelmeergebiet*. Hamburger Beiträge zur Archäologie 6. Hamburg.
- Šipka 2006a <http://www.ancient-bulgaria.com/2006/09/13/the-2400-year-old-golden-mask-of-thracian-king->

- found-by-georgi-kitov/
 Šipka 2006b <http://ngm.nationalgeographic.com/2006/12/gold-rush/williams-text/1>
- Teržan, B. 2007 Principi e guerrieri delle due sponde altoadriatiche. In M. Guštin, P. Ettel and M. Buora (eds), *Piceni ed Europa. Atti del convegno*, 39–54. Annales Mediterranea, Archeologia di frontiera 6. Udine. Koper.
- Theodossiev, N. 1998 The dead with golden faces: Dasaretian, Pelagonian, Mygdonian and Boeotian funeral masks. *Oxford Journal of Archaeology* 17 (3), 345–67.
- Theodossiev, N. 2000 The dead with golden faces. II. Other evidence and connections. *Oxford Journal of Archaeology* 19 (2), 175–209.
- Topolčane 2007 <http://www.msnbc.msn.com/id/19791150/>
- Vokotopoulou, I., Despini, E., Misaelidiou, V. and Tiverios, M. (eds) 1985 *Sindos, Katalogos tes ektheses*. Exhibition catalogue. Athina.
- Zontschew, D. 1959 *Der Goldschatz von Panagjurischte*. Berlin. Deutsche Akademie der Wissenschaften zu Berlin.

Miniature masterpieces: unusual Iron Age brooches from Scotland

Fraser Hunter

Introduction

Two highly unusual Iron Age brooches from Scotland raise intriguing questions about styles and connections in insular Celtic art, and provide an opportunity to review brooch use in Scotland. I hope this attempt to interpret Celtic art at the north-western edge of Europe will be of interest to Barry—his work on the Irish material and its international context has been a source of inspiration on the other side of the North Channel, and this paper is some small token of thanks.

A double-headed zoomorphic brooch from Finlaggan, Islay (Fig. 1)

In the course of excavations at the seat of the medieval lordship of the Isles at Finlaggan Loch on Islay (Argyll), traces of Iron Age activity were uncovered (Caldwell 2001, 163–75). Eilean na Comhairle, the smaller island, proved to be a crannog that subsequently supported a dun and a castle. Radiocarbon dates from limited investigations suggested two phases of crannog, around the last century BC and the sixth century AD (*ibid.*, 19, 173). The neighbouring larger island, Eilean Mòr, produced poorly dated hints of Iron Age activity. In 1997 a metal-detector survey conducted by Roger McWee as part of the project produced a remarkable Iron Age brooch from shallow water a few metres off the south-west side of Eilean Mòr, lying in a few inches of sediment (Fig. 1; NGR 3878 6807). It has previously been illustrated in Haselgrove *et al.* 2001 (rear cover) and briefly discussed by Megaw and Megaw (2005, 75).

This delicately cast double animal-headed brooch with a hinged pin is decorated with symmetrical combinations of slender trumpets; the dominant motifs are back-to-back trumpets ('muzzles'; M. MacGregor 1976, xviii), double-ended trumpets (alone and back to back) and crescents. The head over the hinge is larger; the broad, oval bow is humped towards this end, but the bow is symmetrical in plan, with a focal circular device. This is flanked by two narrow incised crescents and surrounded by slender double-ended trumpets

which meet conjoined back-to-back trumpets running up the bow, which themselves sit atop an opposed trumpet pair running down to the neck. Narrow crescents flank many of the trumpets at the edges of the brooch, smoothing the lines of the composition. The two slender animal heads have long curved necks (their inside curve formed of a keeled crescent), elongated curved heads and upturned snouts with a pronounced ridge; their mouths are closed. Careful modelling has defined both ears and horns; the flap of the ear projects forward and back from the incurving horns, whose expanded terminals are joined in a knob (lost on the smaller head). Deeply hollowed lentoid eyes are framed by low-relief conjoined trumpet pairs; possible inlay in one eye is too obscured by corrosion to identify, and may simply be ingrained dirt. The conical nostril hollows may also have been inlaid. Larger lentoid mouldings created by opposed trumpets mark the start of the neck; one is perforated to hold the solid copper-alloy axis for the hinged pin. The pin has a disc slightly offset at one end, perforated to hold the axis. The tip is bent slightly upwards over the last 10mm. An apparently deliberate small hole (*c.* 1mm in diameter) on the inside curve of the neck over the axis could have held a small piece of wire or fine peg, perhaps acting to tighten the hinge by restricting its movement. The underside of the bow is hollowed; traces of a lattice pattern appear to be the dendritic cast structure etched by corrosion rather than vestigial textile traces. Slightly uneven corrosion on the circle might suggest that a decorative element (perhaps a coral or glass stud) was once glued to it, but this seems unlikely without a stronger fastening system (*cf.* similar Continental La Tène A brooches, *e.g.* Haffner 1976, Taf. 12.1, 14.2). Surface X-ray fluorescence analysis (by Dr K. Eremin) showed that both brooch and pin were of bronze, with trace lead and zinc. L 58.5mm, W 15.5mm, H 24mm. Pin: L 42mm, D 2.5mm. Disc: D 6mm. National Museums Scotland: x.L.1998.2.

This magnificent brooch is an assured and well-conceived miniature masterpiece of insular Celtic art, but one which proves very hard to pin down stylistically. It shows two widely divergent traits. The form is a well-known early La Tène type (*Symmetrische Tierkopffibeln*; Binding 1993,

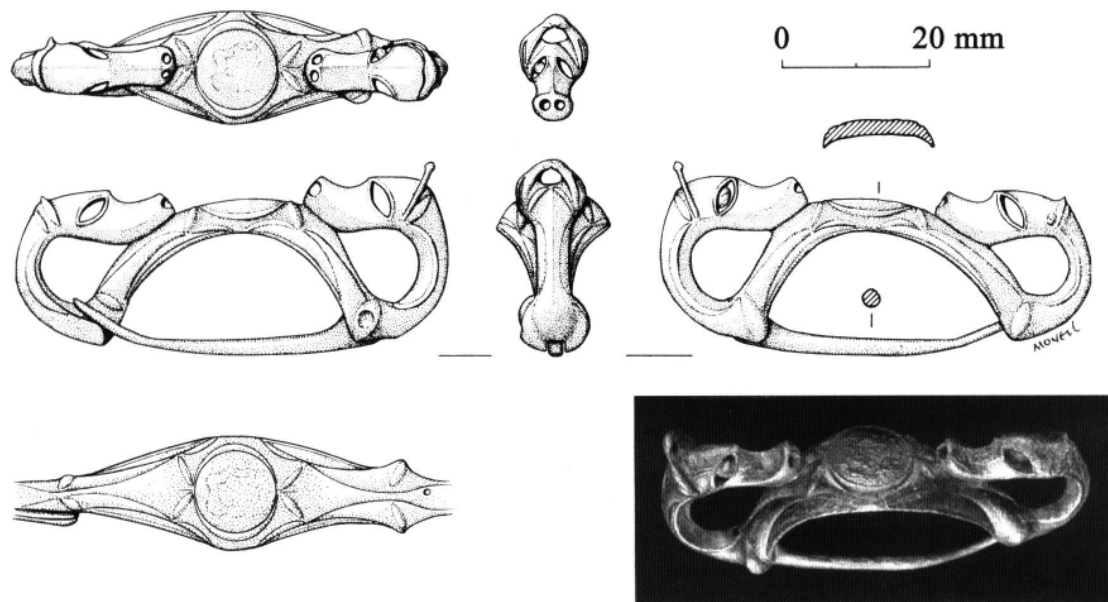


Fig. 1—The Finlaggan brooch. (a) Drawn by Marion O'Neil. (b) Photo by Duncan Anderson (© NMS).

type 14; 22–6, 152–3, Taf. 12–16). These have a broad distribution, from the Marne through the middle Rhine and upper Danube to the Adriatic, while similar (and probably related) brooches are known from the Celtiberian area of central northern Spain. The middle European examples date from La Tène A–B1; Binding argues for an origin in the middle Rhineland, where they are particularly common (1993, 24, 69, Karte 4). Most of these examples have bird heads. The Spanish ones, generally more stylised, are part of an extensive and long-lived series of non-zoomorphic symmetrical brooches (Lenerz-de Wilde 1991, 32–6, 67, 244–5, Liste B1, Karten 16–17; Argente Oliver 1994, 88, 93, figs 8–9, type 8A1.2, figs 8–9, 32). Their dating is not very tight; Lenerz-de Wilde (1991, 35–6) notes specific parallels to French and German brooches that imply fifth-century origins, and she argues plausibly that the Spanish ones arise from such a stimulus, but the few datable associations indicate a floruit from the late fourth to the early second century BC. The symmetrical form continues until around 100 BC, but there is no evidence for zoomorphic examples so late (Argente Oliver 1994, 93; Lenerz-de Wilde 1991, 35–6, 67). Finlaggan is clearly not a Continental import: the style of the heads finds ready insular parallel, while hinged pins are much more common in British than

Continental brooches. Nevertheless, it suggests knowledge of Continental habits. Contacts with both Iberia and the Rhineland are attested in western Britain and Ireland. Early La Tène connections to the Rhineland are seen clearly in the gold torc from Knock ('Clonmacnoise'), Co. Roscommon (Raftery 1984, 175–8; Ireland 1992), while Atlantic connections have been reviewed by Henderson (2007, 122–4) and more generally Cunliffe (2001), with Iberian or Iberian-influenced brooches known from south-west Britain (Hull and Hawkes 1987, 49–52; Whimster 1981, 65–7).

Problems arise, however, with the stylistic parallels for the brooch's decoration, which are substantially later than the early-mid-La Tène parallels for the form. Both the decorative motifs and the style of animal heads suggest a date around the first century BC–second century AD. Slender trumpets in simple, symmetrical arrangements are a feature of late Iron Age art in northern Britain (with zoomorphic parallels on the Deskford boar and, most strikingly, the Stanwick horse mask), persisting on massive metalwork into the second century (MacGregor 1976; Simpson 1968). Naturalistic animal heads also find ready comparanda in the later Iron Age, with specific parallels for outlined eyes and knobbed ear terminals; the latter are found widely also in Continental late Iron Age art (e.g. Jope 2000, pls 163a–f,

166i-j, 167q, 173, 183, 308-9; Megaw *et al.* 1992; Doyen and Warmenbol 1986; van Endert 1991, Taf. 12). Conjoined horns are much harder to parallel, but are probably a specific technical device to strengthen them, given their delicate nature. Although predominantly a southern English tradition, there are similar Irish animal heads on vessel handles from Keshcarrigan, Co. Leitrim, and Somerset, Co. Galway, which Raftery (1984, 218-23) argues strongly as local products; mirror handle terminals from Ballymoney (Co. Antrim) and Brecon (Powys) provide parallels for the idea of a double animal-head motif, albeit differing in style (Raftery 1983, 198, fig. 163; Davis and Gwilt 2008, fig. 9.13).

The slender form of the heads and their elongated muzzle most closely resemble horses (cf. Binding 1993, Abb. 47). The presence of horns rather goes against this, and they may be some fantastic animal, but there are parallels for humans and animals acquiring anatomically incorrect horns to indicate their powerful or supernatural nature (Green 1992, 120).

A number of British Iron Age brooches have suggestions of zoomorphism, not least in the snake-like upturned feet of some La Tène I brooches (e.g. Hull and Hawkes 1987, pl. 24, nos 1235, 3623; pl. 30); this is seen also in the brooch from Binn Hill discussed below. Clear zoomorphism is rarer, although the bird-brooch from Red Hill (Notts) is a remarkable exception (*ibid.*, 152-3, pl. 43, no. 6912). The only close parallel to Finlaggan is another zoomorphic double-headed brooch from Brantingham, eastern Yorkshire, but this unpublished metal-detecting find is known only from verbal accounts and a poor image (J. Dent, pers. comm.); it is impossible to assess its relation to Finlaggan, and attempts to gain access to the original brooch have been unsuccessful.

The inconsistency in dating indicators is symptomatic of more general difficulties with insular Celtic art, where styles overlap or co-occur and datable associations tend to be late, biasing the whole dating framework (Macdonald 2007, 332-3). On current evidence it would be difficult to pull the dating of the heads and slender trumpets back beyond the later first century BC. Various authors have commented on the similarities in vessel form and zoomorphic fittings between the Keshcarrigan-type bronze bowls and Breton early-middle La Tène pottery of fifth-third-century BC date (Cunliffe and de Jersey 1997, 38-40; Wheeler 1943, 216-17; Fox 1961, 196). This would pull the dating of the bowls (and by association the Keshcarrigan handle)

dramatically earlier, but some such bowls come from secure late first-century BC/early first-century AD contexts (Raftery 1984, 223; M. MacGregor 1976, 149). It is unlikely that a type would persist essentially unchanged for almost half a millennium, given rates of changes in other artefact types, even with the relative conservatism of other vessel forms such as cauldrons. While unlikely to give us the early La Tène context needed for the Rhineland parallels, it may work a little better for a Celtiberian stimulus. Cunliffe and de Jersey (1997, 40) note that shallow flaring ceramic bowls are found in the third and perhaps into the second century BC in Brittany; this overlaps with the likely dating of the Spanish symmetrical brooches, and Atlantic seaways might form a plausible vehicle for such influences to reach Islay. This is still rather earlier than current evidence for the dating of slender trumpets, however, even with the problems of dating insular Celtic art, and it would be the proverbial shooglie peg to hang the theory on without further supporting evidence.

On balance, it seems that the Finlaggan brooch is most likely to be later first-century BC-first-century AD (although slender trumpet motifs continued into the second century, the alloy is more typical of the pre-Roman period; Dungworth 1996, 407-10). The tantalising resemblance to earlier brooches must be seen either as accidental or conscious antiquarianism, based perhaps on long-surviving heirlooms. The location of manufacture is hard to pin down. Slender trumpets are found regularly in both northern British and Irish metalwork; the heads might point further south, but if the Keshcarrigan and Somerset handles are accepted as Irish products, the idea of such heads was known in the general area. What of the brooch form, if not derived from the Continent? Given Islay's location, we might look again to Ireland, and the series of third-first-century BC leaf-bow brooches with zoomorphic terminals as a source of inspiration (Raftery 1984, 144-53)—although the hinged pin would be very unusual for Ireland, and suggests manufacture on the eastern side of the Irish Sea. While it would be foolish to lay claim to a particular locus, Ireland and northern Britain could provide the necessary stimuli—appropriately for a piece found at Finlaggan, from where in later centuries the Lords of the Isles dominated the self-same seaways.

Iron Age Islay has seen only limited investigation, and little is known of Finlaggan's pre-medieval status, although such fine metalwork suggests that it was a power centre long before its medieval heyday. The only other Iron Age

decorative metalwork from the island is a La Tène I or II variant brooch from Ardnave (Hull and Hawkes 1987, 177–8). The Finlaggan find-spot, within water, smacks of ritual intent, but it could have been lost in use, as the tip is bent slightly upwards and would have been loose. While it will continue to puzzle for some time to come, the Finlaggan brooch stands as a miniature masterpiece of Celtic art.

A zoomorphic bow brooch from Binn Hill, Moray (Fig. 2)

Another unusual Iron Age brooch was found by Alistair McPherson in 2001 while metal-detecting on the south-east slopes of the Binn Hill, Garmouth, Moray (NGR: NJ 308 601; preliminary notes in *DES* 2002, 84, and Hunter 2006, 153, with wrong grid reference). There is no recorded Iron Age activity in the immediate vicinity, although the Law hoard of Iron Age gold ribbon torcs was uncovered just over 1km to the west (Coles 1968; for the revised dating of ribbon torcs, see Warner 2003; Warner 2004).

It is a one-piece casting with a decorated leaf-bow, the decorative foot returned to join the bow, leaving an opening in the catch-plate. The flat oval bow has a *champlevé* field of yellow enamel with three longitudinal zigzag reserved metal ribs formed of conjoined ovals; the central rib is markedly thicker. The left field edge has a series of V-notches (perhaps for enamel keying) along its upper half; these are absent on the other side, where the start of another zigzag cut into the margin and a small separate oval field off the main one, all but invisible to the naked eye, are probably mistakes in modelling prior to casting. The central rib terminates at the head in a circular hollow, originally inlaid, with a hole for a retaining rivet. A low central moulding runs round the cylindrical spring case, joining a raised rib on the underside. The hinged pin is lost but part of the iron axis survives; slightly raised mouldings on the cylinder ends were probably intended to evoke a spring. The foot return is decorated with two conjoined teardrop mouldings flanked by two circles, all hollowed for lost inlay. The bases of the teardrops have three depressions to aid bonding with the inlay. The catch-plate return is hollowed over about half its length to hold the pin. The brooch has a strong zoomorphic feel; although identification of species is fraught with uncertainty, the zigzag patterns on the bow might suggest a snake's body with the foot return forming the eyes and mouth. L 54mm, W 17.5mm, H 16mm. Alloy: bronze with some lead; arsenic,

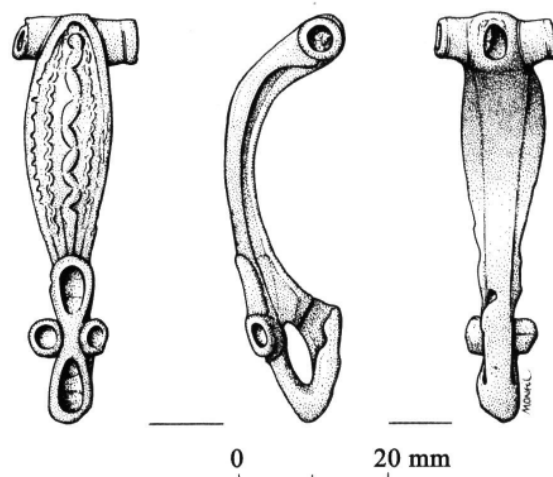


Fig. 2—The Binn Hill brooch. Drawn by Marion O'Neil.

antimony and iron trace elements. National Museums Scotland: FA 128 (currently on long-term loan to Elgin Museum).

This brooch appears to be unique. The integral foot is normally seen as a La Tène III feature, but no parallels of this date have yet been found. Its overall shape would be more at home with other British La Tène II 'oddballs', several of which are also one-piece castings (Hull and Hawkes 1987, 143–55, type 2Bb); compare, for instance, the treatment of the foot as a cluster of separate inlaid elements with an example from Danes Graves, east Yorkshire (*ibid.*, pl. 42, no. 2250). The use of yellow enamel (lead-rich with tin colourant) might argue for a late Iron Age (La Tène III) date; inlays prior to c. 100 BC were predominantly coral and various substitutes, notably red glass and stone (e.g. Henderson and Freestone 1991; Dent 1995). While opaque yellow glass is found in middle Iron Age beads, it is far more common in the late Iron Age (e.g. Henderson 1989, 45–6, 49–52): in a north British context, it was used extensively for beads and bangles (e.g. Guido 1978, classes 8, 13 and 14; Kilbride-Jones 1938), and as enamel on massive-tradition metalwork (e.g. M. MacGregor 1976, nos 239–40; Hunter 1998, 338–9). A sword handle from Grimthorpe (Yorks), however, inlaid with red and yellow glass—'the earliest occurrence of inlaid opaque yellow glass in Britain'—is dated to the second century BC (Stead 2006, 60, 63; Rigby 2006, 116–18). Technically it differs, comprising glass blocks set

into an iron frame rather than enamel, but it shows the colour's use for inlay by this date, making a date from the second century BC onwards feasible.

The zoomorphism, yellow enamel and wave pattern resonate with local north-east Scottish metal-working traditions, although none are distinctive for this area. In the absence of ready exotic parallels, it would seem churlish to assume that it must be an import. Against this is the absence of any tradition of brooch manufacture and very limited evidence of use in Scotland, although this may be misleading, as discussed below. As always with unique items, we are left with uncertainties. There are similarities to the Irish leaf-bow brooches discussed earlier; although not enamelled, their bow form and zoomorphism are reminiscent of Binn Hill and may have been an influence upon it (cf. Raftery 1984, 146–52, fig. 80; Jope 2000, pl. 196). Connections between Ireland and north-east Scotland are seen a little later in the massive-tradition armlet from Newry, Co. Down (Raftery 1983, 177, fig. 148). In combination, the Irish parallels for the bow form, the Grimthorpe evidence for yellow glass/enamel by the second century BC, the pre-Roman alloy type and the evidence for other La Tène II ornate one-piece oddballs suggest a second–first-century BC date.

Iron Age brooches in Scotland

Iron Age brooches are rare in Scotland (Table 1; Fig. 3), with fewer from the entire country than from single cemeteries on the Continent. Hull and Hawkes (1987) discussed the La Tène I–II types, while penannular brooches were covered by Fowler (1960, 161–5, 171–2), but some old and new discoveries merit further comment.

A lost find restored: a La Tène I brooch from the Scottish Borders (Fig. 4)

We should start with the first Iron Age brooch recorded from Scotland—a La Tène I example illustrated in an unpublished manuscript by the antiquarian Adam de Cardonnel (Fig. 4; Cardonnel, n.d., pl. XIX, 1; for background see Hunter 2006, 144–6; the plate is undated, but the volume was compiled c. 1789–1800). The caption records: 'A Roman fibula of brass found in Teviotdale, the length about 3 inches'. The Teviot is a tributary of the Tweed, running from a source about 20km south-west of Hawick to its confluence

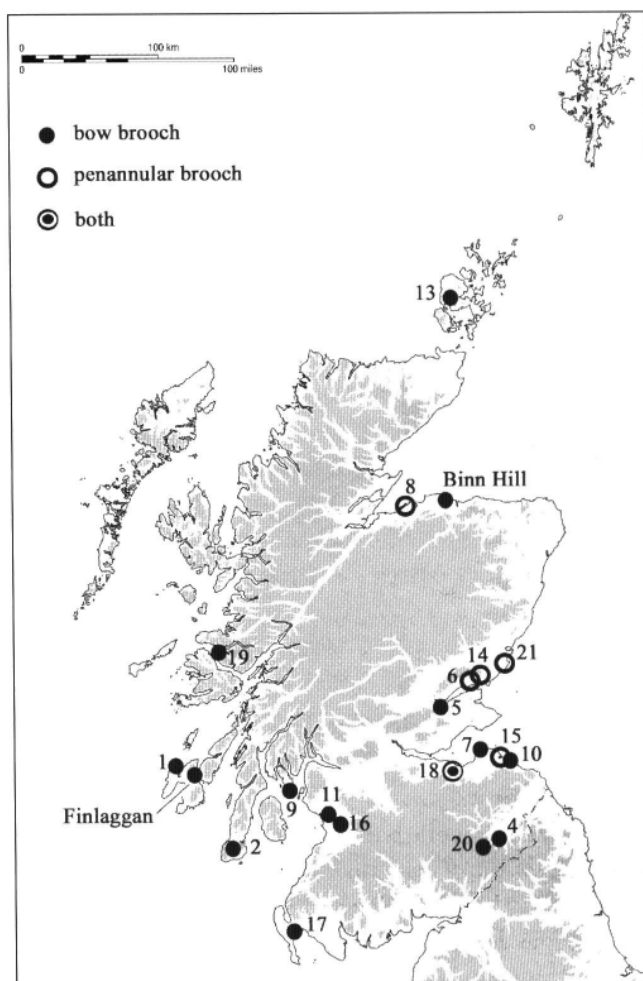


Fig. 3—Distribution of Iron Age brooches in Scotland. For numbering see Table 1.

at Roxburgh, near Kelso. As discussed elsewhere, Cardonnel's attributions are not always trustworthy (Hunter 2006, 147–8), but there are circumstantial grounds to support an attribution to the Scottish Borders. The brooch may be identified with an unprovenanced one in the British Museum (Hull and Hawkes 1987, 81, pl. 25, no. 6670 (their type 1A); BM 78,11-1,272). The similarities in size (length 70mm = 2³/₄ inches), shape and detail of the broken foot leave little room for doubt. This brooch was part of the residue of the Meyrick Collection, donated to the museum by Major General Augustus Meyrick in 1878 (J.D. Hill, pers. comm.; King 1997, 149–50; Caygill and Cherry 1997, 330 n.84). It came from the famous collection of arms and antiquities amassed by Sir Samuel Rush Meyrick (1783–1848). No specific mention of it has yet been traced

Table 1—Iron Age brooches from Scotland. Pre-1975 counties are used for consistency with earlier records. Under 'Type', LT is La Tène I–III, followed by the type from Hull and Hawkes 1987 and the material (Fe, iron; CuA, copper alloy). Simple wire brooches of La Tène III type are excluded since these also occur on Roman sites (e.g. Curle 1911, 318; Allason-Jones 2007, 399); examples are known from Luce Sands (Wigtownshire; two finds), Norwick, Unst (Shetland) and Dumfriesshire (NMS, unpubl.; Cambridge and Watt 2003; Robertson 1970, 222). Two other supposed finds of bow brooches should be dismissed: Dun an Fheurain, Argyll, and Dun Mor Vaul, Tiree (MacKie 1974, 131). The former was rejected by Ritchie (1971, 102) as the surviving fragments are incapable of sustaining this interpretation; inspection of the latter fragments indicates that they are undiagnostic.

No.	Site	County	Type/material	Ref.
1	Ardnave, Islay	Argyll	LT I or II (1C or 3B; CuA)	Hull & Hawkes (1987, 177–8) suggest LT II, but the foot return is mostly lost, and it could be LT I (Ritchie & Welfare 1983, 341–3)
2	Balloch Hill	Argyll	LT II (2Bb; CuA)	Hull & Hawkes 1987, 150–1; Close-Brooks 1982
3	Binn Hill	Moray	? (CuA)	
4	Bonchester	Roxburgh	LT I (1C; Fe)	Hull & Hawkes 1987, 131
5	Castle Law, Abernethy	Perth	LT I (1C; CuA)	Hull & Hawkes 1987, 131
6	Craigie	Angus	Penannular (Aa; Fe)	Fowler 1960, 172
7	Craig's Quarry, Dirleton	E Lothian	LT II? (3B; CuA)	Hull & Hawkes 1987, 177; Hattatt 1985, 14–16; the lack of a collar fixing foot to bow makes its identification insecure
8	Culbin Sands	Moray	Penannular (Aa; CuA)	Fowler 1960, 172
9	Dunagoil	Bute	LT I (1C; Fe)	Hull & Hawkes 1987, 131
10	Dunbar	E Lothian	LT III (Fe)	Unpublished
11	Dundonald	Ayrshire	LT I or II (CuA)	
12	Finlaggan, Islay	Argyll	? (CuA)	
13	Howe	Orkney	LT I (1Ca; CuA)	Ballin Smith 1994, 223–4
14	Laws of Monifieth	Angus	Penannular (Aa; Fe)	Fowler 1960, 171
15	Lochend, Dunbar	E Lothian	2 penannulars (Aa; Fe)	Longworth 1966, 180–1
16	Lochlee	Ayr	Irish-inspired? (CuA)	Munro 1882, 129–31, fig. 141; Raftery 1984, 328
17	Luce Sands	Wigtown	LT III (6; CuA)	Hull & Hawkes 1987, 196
	Luce Sands	Wigtown	LT III (Nauheim variant; CuA)	Stevenson 1966, 22, 39
	Luce Sands	Wigtown	LT II (involute; CuA)	
18	Moredun	Midlothian	LT III ?Colchester (Fe) & penannular (B, Fe)	Coles 1904
19	Rahoy	Argyll	LT I (1C; CuA)	Hull & Hawkes 1987, 131
20	Teviotdale	Roxburgh	LT I (1A; CuA)	
21	West Mains of Ethie	Angus	Penannular (Aa, CuA)	Wilson 1980, 119

in the available archives, and there is no detailed catalogue of his collection. A provenance in the Scottish Borders is plausible, however, given Meyrick's connections with Sir Walter Scott (1771–1832). The two men met in London in 1821, with Scott visiting Meyrick's arms and armour display in Goodrich Court, Herefordshire, before returning home; thereafter Meyrick acted for Scott in the London salerooms (Lowe 2003, 85). They maintained a correspondence; Scott sent an unspecified item to Meyrick for his collection, and they met again in Edinburgh in 1822 while Meyrick was

touring Scotland with his son (*ibid.*, 85–6; A. MacGregor 1997, 10–11, 28 n.17).

The evidence is circumstantial. We cannot prove that Scott had this brooch, though he was a prodigious collector of Border antiquities (Cheape *et al.* 2003); neither can we prove that he gave it to Meyrick, but the connections between the two men and the evidence of material being exchanged make this plausible. (Meyrick's Scottish visit would in any case have given him other possibilities to acquire material.) Meyrick's collecting interests extended to

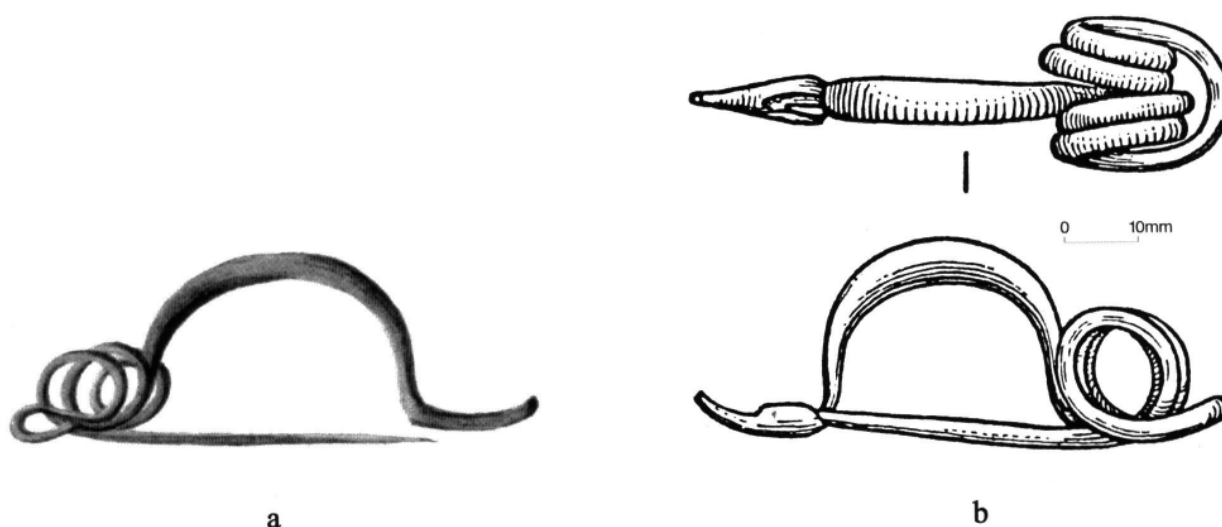


Fig. 4—(a) Brooch from Teviotdale, illustrated by Adam de Cardonnel (length: 'about 3 inches'); (b) 'Unprovenanced' brooch in British Museum (from Hull and Hawkes 1987, pl. 25, no. 6670).

antiquities, including such Iron Age material as the Witham Shield and the (unprovenanced) Meyrick helmet (Jackson 1995). It is therefore entirely reasonable that a La Tène brooch from the Borders could end up in Meyrick's collection, and the reattribution of the BM brooch to Teviotdale seems secure.

Dundonald, Ayrshire (Fig. 5a)

Excavations at Dundonald Castle in Ayrshire produced a further Iron Age brooch, variously misidentified as Roman or a 'La Tène B fibula pin . . . of . . . the fourth and fifth centuries AD' in the publication (Ewart and Pringle 2004, 100, 126). The report does not specify find-spot or phase, but other later prehistoric finds came from the same layer, and remains of an Iron Age hillfort underlie the medieval castle. What survives is part of the bronze bow and spring of a La Tène brooch. The low-arched bow has a circular section (D 4mm); two coils survive of a four-coil spring with external chord. The absence of the foot makes detailed identification impossible, and it could be either La Tène I or II, late fifth–early second century BC (Hull and Hawkes 1987, types 1Ba–b, 1C, 2A). L 37.5mm, W 14mm, spring D 11.5mm. Alloy (from surface X-ray fluorescence analysis by Dr K. Eremin): bronze with trace zinc, lead, antimony and silver. National Museums Scotland: K.2002.48.

Brooches from Luce Sands, Wigtownshire (Fig. 5b–c)

Hull and Hawkes (1987) only covered a few La Tène III brooches, but did discuss a find from Luce Sands in Wigtownshire that was an import from south-west England (Hull and Hawkes 1987, 193, 196; Hattatt 1985, 14–15). Robert Stevenson (1966, 22, 39 n.29) noted another from the Sands, paralleling it to one from Glastonbury, Somerset (Bulleid and Gray 1911, 192–3, pl. XL, E185), although its gently curved bow is closer to their example E93. It is not in great condition (Fig. 5b; registration number BHF 1): most of the spring, bow margins and foot are lost, making detailed identification a little fraught. What survives of its leaf-bow has a central incised line. It seems clearly a variant of Continental Nauheim types (Werner 1955; Striwe 1996). Although not covered in Striwe's detailed 1996 study, there are true Nauheim brooches from Britain (e.g. Stead 1984, 54–9, fig. 20; Striwe 1994) as well as closely similar variants (e.g. Stansted, Essex, where only the external chord is variant; Major 2004, 121, fig. 84, nos 25–6). The large size of both brooch (surviving L 81.5mm, W 11mm) and spring (D 20mm) marks the Luce Sands brooch out as different from later, so-called 'Nauheim derivatives' of the later first century BC and early first century AD (e.g. Hawkes and Hull 1947, pl. XCII, type VII; Hull 1971, 100, figs 36–7; Olivier 1988, 36–8). Although it resonates strongly with Nauheim forms, in its current condition the

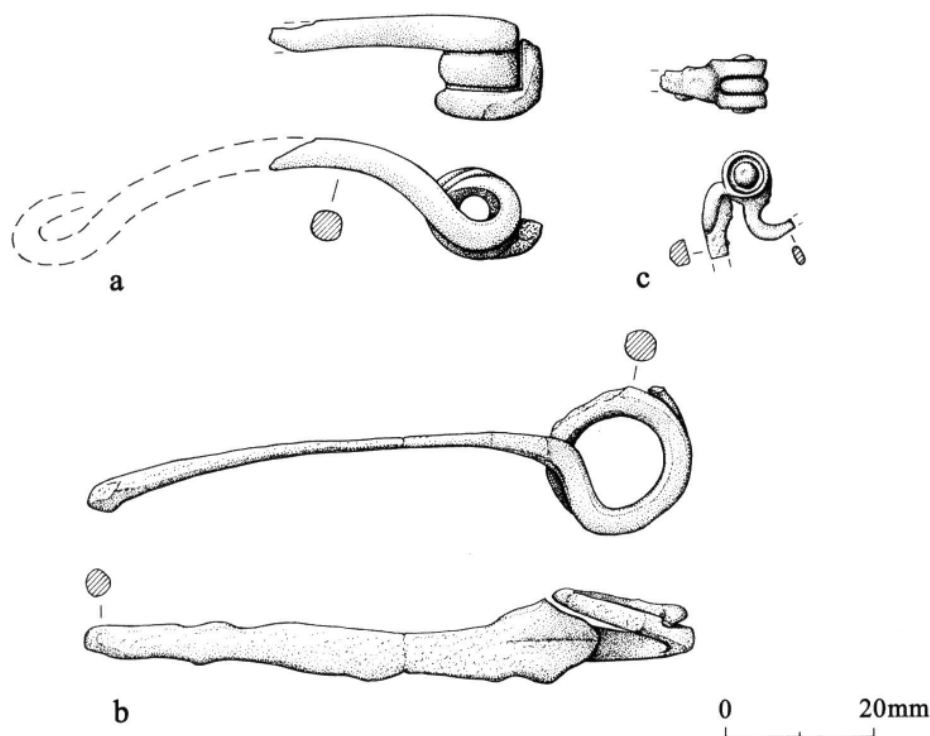


Fig. 5—(a) LT I or II brooch, Dundonald, Ayrshire; (b) Nauheim variant, Luce Sands, Wigtownshire; (c) involute brooch, Luce Sands. Drawn by Marion O'Neil.

Luce Sands brooch shows similarities also to the Irish leaf-bow series (Raftery 1984, 146–9, fig. 50)—themselves perhaps better seen as Nauheim variants, rather than drawing the middle La Tène parallels that have been suggested (*ibid.*, 149–50).

Recent examination of the Luce Sands finds has revealed another Iron Age brooch fragment—from a La Tène II involute brooch, the first known from Scotland (Fig. 5c; registration number BHF 2). Again it is highly fragmentary, making detailed discussion difficult, but the surviving fragment seems distinctive: a three-coil mock spring, the outer coils cast in one with the curving D-sectioned pin, the central one leading to the deeply curved subrectangular-sectioned body. The axis is a solid copper-alloy cylinder. (Dimensions: spring W 7.5mm; surviving L 14mm, H 12mm.) The deep curve suggests that it comes from a short involute brooch (cf. Dent 1982, 441–4, group 4, fig. 4; Stead 1991, 83–9; Hull and Hawkes 1987, type 2Cb, 156–7, 163–7, pls 47–9; Brown *et al.* 2007, 147–8). Dent's Yorkshire sequence indicates that these are

typologically late within the sequence, suggesting a second-century BC date (Dent 1982, 441–4).

Unfortunately all these brooches are antiquarian finds, with no details of circumstances or associations. The extensive dune systems at Luce Sands, at the head of the largest bay in Scotland, were happy hunting grounds for antiquaries and have produced massive multi-period collections. Modern investigations have been highly limited by the area's use as a bombing range (Cowie 1996), and we know little of the nature of Iron Age activity there, although later prehistoric stray finds include oil shale/cannel coal jewellery and glass beads. It was a natural contact point with seaborne traffic from the outside world, however, so the discovery of non-local metalwork is of little surprise.

Other brooch finds

Recent excavations have also added a little to the brooch corpus. An iron La Tène III brooch was found in 2005 with the primary interment in a double grave at Dunbar, East

Lothian (*DES* 2005, 51); full study is in progress. An old discovery of a similar double burial at Moredun (Midlothian) was also accompanied by brooches (Coles 1904). Recent X-radiography shows that the bow brooch has a low-arched round-sectioned bow and narrow wings covering the spring. Further conservation is required for firm identification, as spring and catch-plate details are obscured, but it may be a Colchester with the hook and chord lost; this would suggest a date of *c.* AD 1–50. The second burial was accompanied by an iron projecting ring-headed pin and an iron penannular brooch of Fowler's type B, with spiral terminals and a short, gently curved pin. There has otherwise been little to supplement Fowler's (1960) work on early penannular brooches, apart from a radiocarbon date for the burial accompanied by a type Aa iron penannular from Craigie, Angus (Hutcheson 1903). The date, AD 80–330 (2 σ ; GrA-27259, 1815 $\pm$ 35 BP; *DES* 2004, 176), confirms that typologically early penannulars survived into the Roman Iron Age.

Discussion

Brooches are not a common feature of the Scottish Iron Age, with a thin but wide scatter, mainly from settlement sites, across the country (Fig. 3; Table 1). Penannulars are even rarer than bow brooches, and it seems that pins were the normal form of clothes-fastener: although the dating of the main northern pin type, the projecting ring-headed pin, has long been debated, stratified examples now make it clear that they were in use from at least the third century BC (Croom 2001, 141–3).

In the past, La Tène I–II brooches were key parts of the argument used to track migrations and influences from the south (e.g. Childe 1935, 231; C.M. Piggott 1950, 131–5; S. Piggott 1958, 72–4). This is now discredited; they act instead as markers of the contacts available to the Iron Age peoples of Scotland, sitting with a range of other material to show regular if infrequent connections to south and west over much of the later first millennium BC (cf. Stevenson 1966, fig. 2). They are also valuable in demonstrating that Atlantic areas had access to decorative metalwork, as the lack of a hoarding tradition in these regions causes them to appear barren (Hunter 1997).

This issue of depositional practices and taphonomy has further implications: these brooches raise worrying questions which highlight how partial our understanding of their

original use is. From distribution maps (e.g. Jope 2000, 42, map 4) it would seem that, apart from a hot spot in East Yorkshire, brooches were virtually unknown in the north of Britain. But is this a result of taphonomic bias? Much of the south had a habit of on-site structured deposition of artefacts (e.g. Hill 1995) but this was not a common feature in the north, while the tradition of accompanied burial in East Yorkshire makes brooches visible here but nowhere else. This last point is well recognised, but its implications are rarely considered. If we take the burials away, then Yorkshire becomes a virtual blank. For La Tène I and II types, Hull and Hawkes list just three brooches (1987, 140–2, nos 3798, 7264 and 7265), of which the Sawdon one may well be from a burial (I. Stead, pers. comm.); the two unusual Whitby ones are also strays, and may not be Iron Age at all, although recent excavations have confirmed Iron Age settlement at the Abbey site (T. Wilmott, pers. comm.). The extensive Garton/Wetwang settlement excavations added a solitary LT I (Dent 1982; also two proto-dragonesque brooches and a penannular), while the British Museum's project to target the material culture of East Yorkshire settlements produced only two ring-headed pins and a penannular brooch (Rigby 2004, 50–1). There is a stray find of an unusual LT I type from Brantingham, as noted earlier (J. Dent, pers. comm.), but even Portable Antiquities Scheme data draw a virtual blank (Worrell 2007, table 2; since this publication, a single involuted brooch has been found in West Yorkshire; S. Worrell, pers. comm.). Clearly, Yorkshire settlement sites rarely produce bow brooches—yet the people buried with brooches lived somewhere, and they were not just worn in death, as some show clear signs of use-wear (Stead 1991, 83, nos 5 and 9). The sparsity of brooches on sites is a poor reflection of the extent of their use; the combination of depositional habits on sites and in burials gives a highly skewed picture.

This Yorkshire analogy could be used to argue that the north of Britain was a brooch-making and brooch-using area which is barely reflected in the archaeology. This would be an extreme position—the imbalance between numbers of bow brooches and projecting ring-headed pins in the similar depositional circumstances of Atlantic-zone settlements indicates that brooches were always rarer than pins. It does, however, show that we are poorly equipped to discuss the extent of brooch use. Typological arguments may advance matters. Some of the brooches are of types well known in the south; all the LT I brooches find ready southern parallel, as does the LT III from Luce Sands, of south-west English type.

The claimed LT II brooches from Dirleton and Ardnave are classed as aberrant by Hull and Hawkes; this difference from southern norms might suggest that they were local products, but neither is strictly LT II as it survives, lacking the collared foot, and thus they cannot be closely classified. Raftery (1984, 152) has noted similarities between Dirleton and a brooch from Navan, Co. Armagh, arguing that both are pseudo-LT II, of early first-century AD date (cf. Bayley and Butcher 2004, 145–6), but Dirleton is too incomplete to be certain of its identification. Leaving this to one side, the number of unusual brooches within the small northern corpus is also noticeable; the Finlaggan and Binn Hill brooches discussed here, and the Balloch Hill (Argyll) brooch which bears Plastic-style decoration (Hull and Hawkes 1987, 150–1; Harding 2007, 136), all currently stand as unique. They could be local commissions or imports, but in all cases they show both high-quality craftwork and a knowledge of wider styles. It is notable that, in slightly later times, a significant number of the Roman brooches imported into Scotland are also unusual, suggesting a continuing taste for the more exotic end of the brooch spectrum (Hunter 2001, 300–1).

Conclusions

One of the delights of working with Iron Age decorative metalwork is the challenge that new finds pose to our understanding of the period and its art. The brooches studied here are fine examples. Neither is easily categorised, and both have raised issues of chronology which are only rather unhappily resolved, but they show the vibrancy of Celtic art in the north and west of the insular world, drawing on a wide range of styles and influences to create unique items that would have been highly valued in the status-conscious societies of the period. In Scotland, as in Ireland, decorative metalwork retains the power to challenge and change our perspectives.

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References

- Allason-Jones, L. 2007 Small objects. In W. S. Hanson, *Elginhaugh: a Flavian fort and its annexe*, 396–443. London. Roman Society.
- Argente Oliver, J.L. 1994 *Las Fibulās de la Edad del Hierro en la Meseta Oriental: Valoración tipológica, cronológica y cultural*. Madrid. Instituto de Conservación y Restauración de Bienes Culturales.
- Ballin Smith, B. 1994 *Howe: four millennia of Orkney prehistory*. Edinburgh. Society of Antiquaries of Scotland.
- Bayley, J. and Butcher, S. 2004 *Roman brooches in Britain: a technological and typological study based on the Richborough Collection*. London. Society of Antiquaries of London.
- Binding, U. 1993 *Studien zu den figürlichen Fibeln der Frühlatènezeit*. Bonn. Habelt.
- Brown, F., Howard-Davis, C., Brennand, M. et al. 2007 *The archaeology of the A1 (M) Darrington to Dishforth DBFO road scheme*. Lancaster. Oxford Archaeology North.
- Bulleid, A. and Gray, H. St G. 1911 *The Glastonbury lake village*. Taunton. Glastonbury Antiquarian Society.
- Caldwell, D.H. 2001 *Islay, Jura and Colonsay: a historical guide*. Edinburgh. Birlinn.
- Cambridge, O. and Watt, T. 2003 The northernmost Roman brooch from Britain. *Lucerna* 26, 8.
- Cardonnel, A. de [n.d., c. 1800] *Relicta Antiqua*. Being a collection of the remains of ancient crosses, obelisks, funeral monuments, arms, urns, beads, amulets &c, and c. of different nations which have been found and discovered in Scotland. [Manuscript in National Museums Scotland library (CC 937 CAR).]
- Caygill, M. and Cherry, J. (eds) 1997 *A. W. Franks: nineteenth-century collecting and the British Museum*. London. British Museum.
- Cheape, H., Cowie, T. and Wallace, C. 2003 Sir Walter Scott, the Abbotsford collection and the National Museums of Scotland. In I. G. Brown (ed.), *Abbotsford and Sir Walter Scott: the image and the influence*, 49–89.

- Edinburgh. Society of Antiquaries of Scotland.
- Childe, V.G. 1935 *The prehistory of Scotland*. London. Kegan Paul.
- Close-Brooks, J. 1982 Brooch. In E. Peltenburg, 'Excavations at Balloch Hill, Argyll'. *Proceedings of the Society of Antiquaries of Scotland* 112, 142–214, at pp 194–5.
- Coles, F.R. 1904 Notice of the discovery of a cist of the early Iron Age, on the estate of Moredun, near Gilmerton. *Proceedings of the Society of Antiquaries of Scotland* 38 (1903–4), 427–45.
- Coles, J.M. 1968 The 1857 Law Farm hoard. *Antiquaries Journal* 48, 163–74.
- Cowie, T.G. 1996 Torrs Warren, Luce Sands, Galloway: a report on archaeological and palaeoecological investigations undertaken in 1977 and 1979. *Transactions of the Dumfriesshire and Galloway Natural History and Antiquarian Society* 71, 11–105.
- Croom, A.T. 2001 The Iron-Age finds. In N. Hodgson, G. C. Stobbs and M. van der Veen, 'An Iron-Age settlement and remains of earlier prehistoric date beneath South Shields Roman fort, Tyne and Wear'. *Archaeological Journal* 158, 62–160, at pp 141–6.
- Cunliffe, B. 2001 *Facing the ocean: the Atlantic and its peoples*. Oxford University Press.
- Cunliffe, B. and de Jersey, P. 1997 *Armorica and Britain: cross-channel relationships in the late first millennium BC*. Oxford. Oxford University Committee for Archaeology.
- Curle, J. 1911 *A Roman frontier post and its people: the fort of Newstead in the parish of Melrose*. Glasgow. Maclehose.
- Davis, M. and Gwilt, A. 2008 Material, style and identity in first century AD metalwork, with particular reference to the Seven Sisters Hoard. In D. Garrow, C. Gosden and J.D. Hill (eds), *Rethinking Celtic art*, 146–84. Oxford. Oxbow.
- Dent, J.S. 1982 Cemeteries and settlement patterns of the Iron Age on the Yorkshire Wolds. *Proceedings of the Prehistoric Society* 48, 437–57.
- Dent, J.S. 1995 A distinctive form of inlaid brooch from Iron Age Britain. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age*, 41–8. Oxford. Oxbow.
- DES 2002 *Discovery and Excavation in Scotland 2002*. Edinburgh. Council for Scottish Archaeology.
- DES 2004 *Discovery and Excavation in Scotland 2004*. Edinburgh. Council for Scottish Archaeology.
- DES 2005 *Discovery and Excavation in Scotland 2005*. Edinburgh. Council for Scottish Archaeology.
- Doyen, J.-M. and Warmenbol, E. 1986 Ein Bronzestierkopf augusteischer Zeit aus Liberchies (Hainaut, Belgien). *Germania* 64 (1), 168–72.
- Dungworth, D.B. 1996 The production of copper alloys in Iron Age Britain. *Proceedings of the Prehistoric Society* 62, 399–421.
- Ewart, G. and Pringle, D. 2004 *Dundonald Castle excavations 1986–93* [= *Scottish Archaeological Journal* 26]. Edinburgh. Glasgow Archaeological Society.
- Feugère, M. 1985 *Les fibules en Gaule méridionale de la conquête à la fin du Ve siècle après J.-C.* Paris. CNRS.
- Fowler, E. 1960 The origins and development of the penannular brooch in Europe. *Proceedings of the Prehistoric Society* 26, 149–77.
- Fox, A. 1961 An Iron Age bowl from Rose Ash, North Devon. *Antiquaries Journal* 41, 186–98.
- Green, M. 1992 *Dictionary of Celtic myth and legend*. London. Thames and Hudson.
- Guido, M. 1978 *The glass beads of the prehistoric and Roman periods in Britain and Ireland*. London. Society of Antiquaries of London.
- Gwilt, A. and Haselgrove, C. 1997 *Reconstructing Iron Age societies*. Oxford. Oxbow.
- Haffner, A. 1976 *Die Westliche Hunsrück-Eifel-Kultur*. Römisch-Germanische Forschungen 36. Berlin. Walter de Gruyter.
- Harding, D.W. 2007 *The archaeology of Celtic art*. London. Routledge.
- Haselgrove, C., Armit, I., Champion, T. et al. 2001 *Understanding the British Iron Age: an agenda for action*. Salisbury. Iron Age Research Seminar/Prehistoric Society.
- Hattatt, R. 1985 *Iron Age and Roman brooches*. Oxford. Oxbow.
- Hawkes, C.F.C. and Hull, M.R. 1947 *Camulodunum*. Oxford. Society of Antiquaries.
- Henderson, J. 1989 The scientific analysis of ancient glass and its archaeological interpretation. In J. Henderson (ed.), *Scientific analysis in archaeology*, 30–62. Oxford. OUCA.
- Henderson, J. and Freestone, I. 1991 The examination of red inlay on the brooches from Rudston and Burton Fleming. In I. M. Stead, *Iron Age cemeteries in East Yorkshire*, 164–7. London. English Heritage.
- Henderson, J.C. 2007 *The Atlantic Iron Age: settlement and identity in the first millennium BC*. London. Routledge.

- Hill, J.D. 1995 *Ritual and rubbish in the Iron Age of Wessex*. British Archaeological Reports, British Series 242. Oxford.
- Hull, M.R. 1971 The brooches. In B.W. Cunliffe, *Excavations at Fishbourne 1961–1969. Volume II: the finds*, 100–7. London. Society of Antiquaries.
- Hull, M.R. and Hawkes, C.F.C. 1987 *Corpus of ancient brooches in Britain: pre-Roman bow brooches*. British Archaeological Reports, British Series 168. Oxford.
- Hunter, F. 1997 Iron Age hoarding in Scotland and northern England. In A. Gwilt and C. Haselgrove (eds), *Reconstructing Iron Age societies*, 108–33. Oxford. Oxbow.
- Hunter, F. 1998 Copper alloy. In L. Main, 'Excavation of a timber round-house and broch at the Fairy Knowe, Buchlyvie, Stirlingshire, 1975–8'. *Proceedings of the Society of Antiquaries of Scotland* 128, 293–417, at pp 338–46.
- Hunter, F. 2001 Roman and native in Scotland: new approaches. *Journal of Roman Archaeology* 14, 289–309.
- Hunter, F. 2006 New light on Iron Age massive armlets. *Proceedings of the Society of Antiquaries of Scotland* 136, 135–60.
- Hutcheson, A. 1903 Notice of the discovery of a full-length stone cist, containing human remains and a penannular brooch, at Craigie, near Dundee. *Proceedings of the Society of Antiquaries of Scotland* 37 (1902–3), 233–40.
- Ireland, A. 1992 The finding of the 'Clonmacnoise' gold torcs. *Proceedings of the Royal Irish Academy* 92C, 123–46.
- Jackson, R. 1995 The Meyrick helmet: a new interpretation of its decoration. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age*, 67–73. Oxford. Oxbow.
- Jope, E.M. 2000 *Early Celtic art in the British Isles*. Oxford. Clarendon Press.
- Kilbride-Jones, H.E. 1938 Glass armlets in Britain. *Proceedings of the Society of Antiquaries of Scotland* 72 (1937–8), 366–95.
- King, J.C.H. 1997 Franks and ethnography. In M. Caygill and J. Cherry (eds), *A. W. Franks: nineteenth-century collecting and the British Museum*, 136–59. London. British Museum.
- Lenerz-de Wilde, M. 1991 *Iberia Celtica: archäologische Zeugnisse keltischer Kulture auf der Pyrenäenhalbinsel*. Stuttgart. Franz Steiner.
- Longworth, I.M. 1966 A massive cist with multiple burials of Iron Age date. Part I: the archaeological report. *Proceedings of the Society of Antiquaries of Scotland* 98 (1964–6), 173–83.
- Lowe, R. 2003 *Sir Samuel Meyrick and Goodrich Court*. Almeley. Logaston Press.
- Macdonald, P. 2007 Perspectives on insular La Tène art. In C. Haselgrove and T. Moore (eds), *The later Iron Age in Britain and beyond*, 329–38. Oxford. Oxbow.
- MacGregor, A. 1997 Collectors, connoisseurs and curators in the Victorian Age. In M. Caygill and J. Cherry (eds), *A. W. Franks: nineteenth-century collecting and the British Museum*, 6–33. London. British Museum.
- MacGregor, M. 1976 *Early Celtic art in north Britain*. Leicester University Press.
- MacKie, E.W. 1974 *Dun Mor Vaul: an Iron Age broch on Tiree*. University of Glasgow Press.
- Major, H. 2004 The brooches. In R. Havis and H. Brooks, *Excavations at Stansted Airport, 1986–91. Volume 1: prehistoric and Romano-British*, 121–8. Chelmsford. Essex County Council.
- Megaw, J.V.S., Megaw, R. and Trett, R. 1992 A late Iron Age cast bronze head probably from Chepstow. *Antiquaries Journal* 72, 54–75.
- Megaw, R. and Megaw, V. 2005 *Early Celtic art in Britain and Ireland* (2nd edn). Princes Risborough. Shire.
- Munro, R. 1882 *Ancient Scottish lake-dwellings or crannogs*. Edinburgh. David Douglas.
- Olivier, A. 1988 The brooches. In T. W. Potter and S. D. Trow (eds), *Puckeridge-Braughing, Herts.: the Ermine Street excavations 1971–1972. The late Iron Age and Roman settlement* (= *Hertfordshire Archaeology* 10), 35–53.
- Piggott, C.M. 1950 The excavations at Bonchester Hill, 1950. *Proceedings of the Society of Antiquaries of Scotland* 84 (1949–50), 113–37.
- Piggott, S. 1958 Excavations at Braidwood fort, Midlothian, and Craig's Quarry, Dirleton, East Lothian. *Proceedings of the Society of Antiquaries of Scotland* 91 (1957–8), 61–77.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Rigby, V. 2004 *Pots in pits: the British Museum East Yorkshire*

- Settlements Project 1988–1992* (= *East Riding Archaeologist* 11). Hull. East Riding Archaeological Society.
- Rigby, V. 2006 Weapons and fittings with enamelled decoration. In I. M. Stead, *British Iron Age swords and scabbards*, 115–21. London. British Museum.
- Ritchie, G. and Welfare, H. 1983 Excavations at Ardnave, Islay. *Proceedings of the Society of Antiquaries of Scotland* 113, 302–66.
- Ritchie, J.N.G. 1971 Iron Age finds from Dùn an Fheurain, Gallanach, Argyll. *Proceedings of the Society of Antiquaries of Scotland* 103 (1970–1), 100–12.
- Robertson, A. 1970 Roman finds from non-Roman sites in Scotland. *Britannia* 1, 198–226.
- Simpson, M. 1968 Massive armlets in the North British Iron Age. In J.M. Coles and D.D.A. Simpson (eds), *Studies in ancient Europe*, 233–54. Leicester University Press.
- Stead, I.M. 1984 Some notes on imported metalwork in Iron Age Britain. In S. Macready and F. H. Thompson (eds), *Cross-channel trade between Gaul and Britain in the pre-Roman Iron Age*, 43–66. London. Society of Antiquaries.
- Stead, I.M. 1991 *Iron Age cemeteries in East Yorkshire*. London. English Heritage.
- Stead, I.M. 2006 *British Iron Age swords and scabbards*. London. British Museum.
- Stevenson, R.B.K. 1966 Metal-work and some other objects in Scotland and their cultural affinities. In A.L.F. Rivet (ed.), *The Iron Age in northern Britain*, 17–44. Edinburgh University Press.
- Striwe, K. 1994 Eine oberrheinische Nauheimer Fibel in Somerset, Großbritannien. In C. Dobiat (ed.), *Festschrift für Otto-Herman Frey zum 65. Geburtstag*, 653–8. Marburg. Hitzeroth.
- Striwe, K. 1996 *Studien zur Nauheimer Fibel und ähnlichen Formen der Spätlatènezeit*. Espelkamp. Marie Leidorf.
- van Endert, D. 1991 *Die Bronzefunde aus dem Oppidum von Manching*. Stuttgart. Franz Steiner.
- Warner, R. 2003 Old letters and new technology—the Ballyrashane gold hoard. In J. Fenwick (ed.), *Lost and found: discovering Ireland's past*, 151–64. Dublin. Wordwell.
- Warner, R.B. 2004 Irish gold artefacts: observations from Hartmann's analytical data. In H. Roche, E. Grogan, J. Bradley, J.M. Coles and B. Raftery (eds), *From megaliths to metal. Essays in honour of George Eogan*, 72–83. Oxford. Oxbow.
- Werner, J. 1955 Die Nauheimer Fibel. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz* 2, 170–95.
- Wheeler, R.E.M. 1943 *Maiden Castle, Dorset*. Oxford. Society of Antiquaries.
- Whimster, R. 1981 *Burial practices in Iron Age Britain*. British Archaeological Reports, British Series 90. Oxford.
- Wilson, E.M. 1980 Excavations at West Mains of Ethie, Angus. *Proceedings of the Society of Antiquaries of Scotland* 110 (1978–80), 114–21.
- Worrell, S. 2007 Detecting the later Iron Age: a view from the Portable Antiquities scheme. In C. Haselgrove and T. Moore (eds), *The later Iron Age in Britain and beyond*, 371–88. Oxford. Oxbow.

Le Vaudois Frédéric Troyon et l'Irlande au milieu du XIXe siècle

Gilbert Kaenel

Frédéric Troyon (1815–66)

Le rôle qu'a joué Frédéric Troyon dans l'archéologie naissante en Suisse, vers le milieu du XIXe siècle, n'est pas négligeable. Mais quel lien peut-on tenter de tisser entre cet érudit qui a grandi près de Lausanne, sur les rives du lac Léman dans le canton de Vaud et l'Irlande?

Rappelons que la vocation du jeune Troyon est née le 26 mars 1838, lorsque des travaux dans la propriété familiale de Bel-Air, au nord de la ville de Lausanne, mettent au jour des sépultures du Haut Moyen Âge. Il abandonne ses études de théologie pour devenir «antiquaire», au grand désespoir de son père . . . (Kaeser 2000; 2001). Il fouillera de nombreuses sépultures au cours des années qui suivent (Leitz 2002), et publiera une série d'articles et monographies durant sa brève carrière. Il a notamment participé à la découverte des «Lacustres» en 1854, avec une plongée mémorable dans la baie de Morges au bord du Léman, le 24 août 1854 (Fig. 1) (Kaenel and Crotti 2004); il fouillera par la suite des *tumuli* hallstattiens et du début de La Tène, tout en notant scrupuleusement ses observations (Kaenel 1990, 38ss).

Troyon a voyagé dans différents pays d'Europe, du Nord en particulier (où il fut notamment précepteur du futur Charles XV en Suède). Fervent adepte du Système des Trois Âges, il met à profit ses voyages pour parfaire son érudition, tout en accumulant une série de dessins et d'aquarelles réalisés dans les plus prestigieux musées d'Allemagne, de Scandinavie ou de Russie. Nous n'évoquons pas ici ses théories dépassées relatives au développement des cultures préhistoriques, effet à ses yeux d'invasions successives, ni son côté mystique ressortant parfois du comparatisme ethnographique qu'il invoque, en évitant toutefois la celtomanie ambiante.

Trois volumes d'aquarelles

Troyon remettra sa collection au Musée cantonal d'archéologie et d'histoire de Lausanne (Fig. 2), dont il fut le premier conservateur dès 1852. L'institution, qui s'appelait

alors «Musée des Antiquités», conserve trois recueils d'aquarelles de la main de Troyon reliées par ensembles thématiques. Troyon manifeste un véritable talent de dessinateur qui témoigne de la finesse de ses observations; il a également réalisé une série de prises d'empreintes et de moulages, dont bien peu, malheureusement, ont survécu . . . On dispose aussi de copies de lettres qu'il envoyait à ses parents, sa sœur ou son maître, l'historien Louis Vuillemin, lettres écrites au cours de ses voyages qui le conduisirent hors de Suisse entre 1843 et 1846.

La biographie de Troyon toutefois reste lacunaire par certains côtés, et d'autres voyages qu'il a dû entreprendre n'ont pas laissé de trace, sinon à travers ses aquarelles!

Trouvailles d'Irlande étudiées à Londres en 1851

C'est ainsi que l'on trouve des objets identifiés comme provenant d'Irlande et reproduits sur 4 planches regroupées dans le premier volume de son *Album* (PL. I, 47–50). Nous les illustrons, en transcrivant le commentaire relatif aux objets irlandais uniquement.

- PL. I, 47 (Fig. 3): *'Anneaux en bronze de l'Irlande de Monsieur James Cove Jones à Londres.'*
- PL. I, 48 (Fig. 4): *'Objets en or de l'Irlande conservés dans le Musée britannique [sic] de Londres.'*
'1.3.4.6.8.9 Objets en or de l'Irlande. Voir mes empr. [empreintes] n° 889.887.888.886.890.-[...].'
- PL. I, 49 (Fig. 5): *'Anneaux en or massif de l'Irlande [souligné], conservés dans le Musée britannique [sic] de Londres.'*
Ces objets ne se trouvent pas dans les tombeaux, mais dans la terre et les tourbières.
On a découvert deux de ces anneaux en Angleterre, avec l'évasement conique.- '
- PL. I, 50 (Fig. 6): *'Antiquités du Musée britannique à Londres.'*
[...]. 3. Irlande [...] – 6. Limerikh Irlande – [...].'

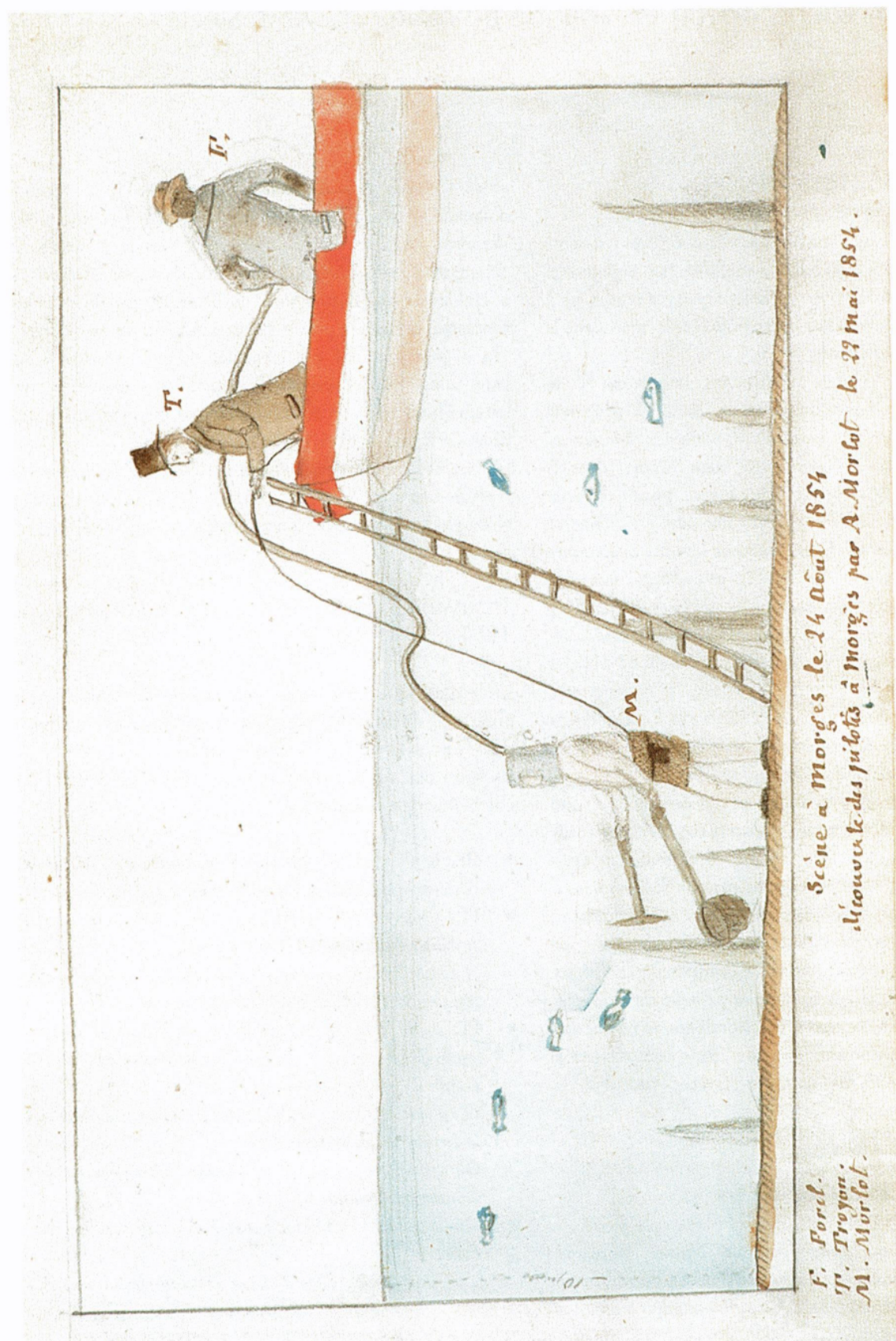


Fig. 1—La découverte des palafittes du Léman. Plongée du 24 août 1854 dans la baie de Morges et première 'fouille' subaquatique . . . Sur le bateau: T = Troyon (Kaenel et Crotti 2004, fig. 2). Frédéric Troyon a entretenu par la suite des contacts avec l'Irlande puisqu'il adresse un article intitulé 'Details of discoveries made at the ancient lake-habitations of Switzerland' à la rédaction de *The Ulster Journal of Archaeology*, publié (No. 29, April 1860, 1–14) en réponse à une note parue l'année précédente 'Ancient lake-habitations of Switzerland and Ireland' (No. 27, July 1859, 179–94).

Les aquarelles portent la signature de Frédéric Troyon et la date de 1851.

On peut donc en déduire qu'il a voyagé à Londres en 1851, qu'il a visité le British Museum, où il a dessiné les objets illustrés, même obtenu l'autorisation d'en prendre des empreintes (introuvables aujourd'hui), et qu'il a eu accès à une collection privée, peut-être rencontré son propriétaire (?), James Cove Jones.

Quelques remarques

Notre intention n'est pas de poursuivre personnellement l'enquête, confiée à des personnes plus compétentes que nous en la matière. James Cove Jones (1823–1910) était le



Fig. 2—Frédéric Troyon posant devant sa collection d'antiquités, remise au Musée de Lausanne dont il fut le premier conservateur dès 1852 (Kaeser 2000, fig. 27).

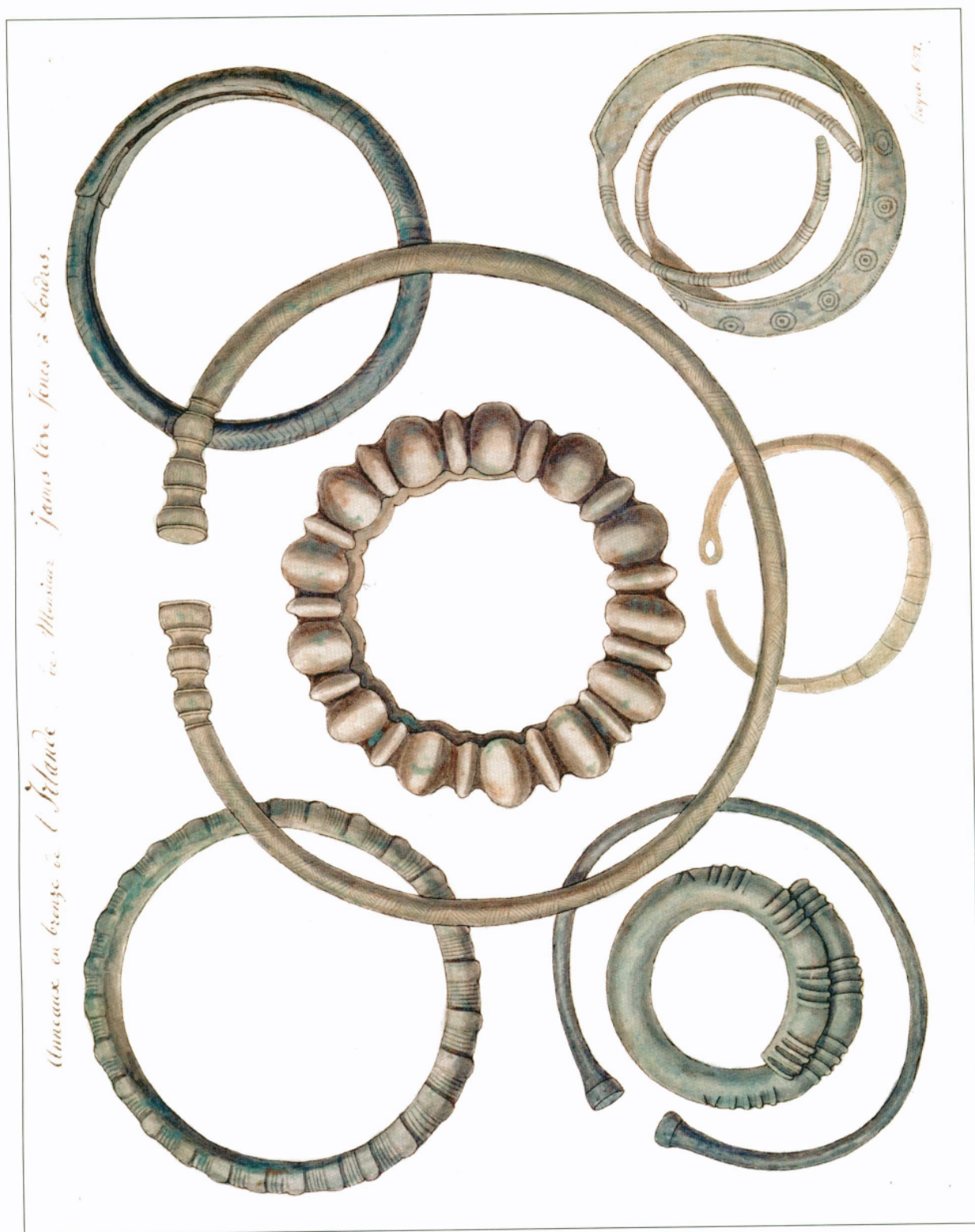
fils de James Cove Jones, médecin originaire du Pays de Galles et formé à Edinburgh. Le jeune James fut inscrit au barreau le 8 mai 1846. Il devint aussi lieutenant dans le régiment de volontaires du Warwickshire en 1854. Il apparaît en tant que souscripteur de différentes publications concernant les découvertes d'antiquités, ce qui démontre un très large intérêt en matière d'archéologie. Une relation avec l'Irlande et des informations sur sa collection n'ont pu être mises en évidence, à l'exception d'un ou deux achats de monnaies. Il est probable qu'il ait acquis les objets irlandais auprès d'un autre collectionneur en Angleterre (peut-être C. W. Loscombe?). Après son décès, le 21 septembre 1910 à l'âge de 88 ans, des monnaies d'une collection Cove Jones ont semble-t-il été vendues par Christies, on trouve dans un catalogue de vente de Sotheby, daté apparemment du 6 février 1911, la mention de C. Cove Jones, une erreur qui sera signalée dans différentes publications numismatiques.

Si l'on ne peut mettre en doute l'authenticité des objets recueillis avant 1851, leur origine, ou du moins celle qui est donnée par Troyon, peut être discutée. C'est le cas notamment du torque de la collection James Cove Jones (Fig. 3, au centre) dont une origine continentale, champenoise par exemple, pourrait être évoquée. Nous n'entreprendons pas l'analyse des objets figurant sur ces planches, ni une recherche de parallèles, démarche peu fécondes au plan de la connaissance en l'absence de données contextuelles.

Nous nous sommes adressé au musée londonien. Les renseignements qui nous ont été transmis par Jody Joy et Ben Roberts sont, comme nous nous y attendions, limités: Certains objets d'Irlande ne peuvent être identifiés avec certitude au sein des collections, dont les parures en bronze de l'âge du Bronze en particulier. Pour les parures en or de l'âge du bronze (Figs 4–5), on se reportera aux travaux de George Eogan (1994 plus particulièrement) et de Mary Cahill (1994; 2006).

Fig. 4:

1. Paroisse de Munterconnaught, Co. Cavan [époque viking] (Cahill 1994, 105).
3. Sun disc, Kilmuckridge, Co. Wexford (*ibid.*, 62–6).
4. Ribbon torc, probablement Ballinameen, Co. Roscommon (*ibid.*, 103).
6. Sun disc, no locality, Ireland (1839. 4-26-19), LBA.
8. Disc, probablement de l'abbaye de Tintern, Co. Wexford (*ibid.*, 102).
9. Ring, près de Waterford [époque viking] (*ibid.*, 105).



Figs 3–6—Aquarelles de Frédéric Troyon, extraites de son *Album*, vol. I, conservé au Musée cantonal d'archéologie et d'histoire à Lausanne (canton de Vaud, Suisse). Largeur du cadre: 26cm (photo: Fibbi-Aeppli, Grandson).
Fig. 3—PL. I, 47.



Fig. 4—PL. I, 48.



Fig. 5—PL. I, 49.



Fig. 6—PL. I, 50.

Fig. 5:

1. Sleeve-fastener. Probablement l'un des deux anneaux provient de Tara Hill, Co. Meath (49.3-1.8 ou 9).
2. Torc. (Voir ci-dessus).
3. Dress-fastener. Près de Tipperary, Co. Tipperary.
4. Ring, bar. Co. Clare (Cahill 1994, 69, pl. VII.1).
5. Bracelet with hollow conical ends. Brahalish, Co. Cork (Cahill 1994, 68; 2006, 228–30; British Museum 1904, fig. 138).
6. Hair-ring. Probablement de Dublin (BM 49.3-1.18).
7. Hair-ring. Presque certainement de la collection Redmond Anthony.
8. Bracelet with slightly expanded terminals. Co. Limerick (Cahill 1994, 103).
9. Striated ring. Presque certainement de la collection Redmond Anthony.
10. Bracelet with hollow expanded terminals. Près de Bantry, Co. Cork (Cahill 1994, 81; 2006, 226–8).

Fig. 6:

3. «A socketed axe with ridge-decorated neck». La forme de cette hache correspond au type 10 de la classification de Eogan (2000, 81), à tranchant large évasé. Les haches à douille ornée de stries appartiennent au type 10A (*ibid.*, 84–5). Celle qui est dessinée par Troyon peut très directement être comparée à la hache 629 d'Irlande (BM 1847.5-20.16), mais elle n'a que 6 stries alors que celle de Troyon semble en avoir 8. Toutefois, compte tenu des distorsions de la représentation aquarellée, il n'est pas impossible qu'il s'agisse du même objet, acquis en 1847 déjà.
6. «The palstave axe», cette hache à talon est très directement comparable à celles de type Ballylin publiées par Ramsey's (1989), caractérisées par un motif en forme de bouclier et des rebords qui se prolongent jusqu'au sommet en formant une cavité quadrangulaire. Les haches en question ont tendance à présenter des rebords et tranchants parallèles ou légèrement évasés (*ibid.*, 156). Cette «palstave axe» présente quelques similitudes de détail avec le no 881 (British Museum, OA 114), qui, comme celle illustrée par Troyon, provient de Limerick et a été mise au jour en 1843. Il s'agit d'un type Ballylin à patine brune et, selon Ramsey, à extrémités du tranchant légèrement recourbé. L'encoche sur le sommet dessiné par Troyon pourrait correspondre à la légère courbure visible sur le croquis de Ramsey (ce qui demanderait toutefois à être confirmé par une nouvelle observation).

The remaining objects on this plate are non-Irish in type and no. 2 can be identified as palstave axe no. 2 with the provenance of Surrey; it seems to be the one depicted in the British Museum's guide to the antiquities of the Bronze Age from 1904 (fig. 50, p. 71) and is there identified as from the Thames near the mouth of the Wandle, one of the tributaries of the River Thames. In the text (*ibid.*, 69) it is stated that the palstave was found together with 'a good sword-blade', an ornamented pin (fig. 49) and a spearhead with remains of its wooden shaft. The pin is illustrated in fig. 49. This group of objects was first published by Franks in his 1852 account of the collections in the BM. As he states, the objects were given to the BM by Robert Mylne, Esq. (*ibid.*, 7), and Franks clearly states that they were found together at the mouth of the Wandle in Surrey, and he comments on their excellent condition. Here, the sword blade is also illustrated (*ibid.*, fig. 1).

Le torque en or à tampons

Parmi ces objets «irlandais», un élément toutefois sort du lot, le torque tubulaire en or au centre de la planche 49 (Fig. 5, 2): cet objet exceptionnel, en plus portant les traces d'une manipulation aboutissant à la présence d'un «nœud» sur le jonc, trouve des parallèles en bronze issus de sépultures, à La Tène ancienne sur le Continent. Les objets sont publiés pour la première fois par Birch (1846): «A second variety of the solid torc, but decidedly of the earlier age, is in the collections of the British Museum. The body is plain but thin, the bulbs oblong, slightly concave, and decorated at the side with an engrailing. This has been anciently twisted into a knot, probably in order to fit a younger or female wearer, or perhaps intended for an armilla, since two more of these were found with it» (Birch 1846, 31, pl. 33).

Malheureusement il n'y a aucune indication de la provenance des objets. L'objet illustré par Troyon se trouve aujourd'hui dans les collections du British Museum.

Paul Jacobsthal (1944 [1969], pl. 33, no. 40) illustre ce torque avec la mention «sans provenance» (*ibid.*, no 40, 170–1). Il propose le parallèle de Waldgallsheid.

Une photographie du torque est illustrée dans l'ouvrage de Hélène Hautenauve (2005, no. 228, fig. 72), qui le range dans son groupe typologique de torques filiformes, aux côtés de quelques exemplaires du célèbre dépôt de Snettisham (*ibid.*, 99).

Troyon mentionne que tous les objets proviennent d'Irlande en haut de l'image; cependant, il indique également que deux de ces objets proviennent d'Angleterre en légende.

Il existe donc une faible chance que l'objet en question (numéro 2) soit un des deux objets avec évasement conique auxquels Troyon fait référence.

Certes ce torque n'est pas richement orné dans le Style végétal continu comme le célèbre torque de Knock, dit de «Clonmacnois», issu d'un dépôt en milieu humide (Raftery 1984, fig. 93; 2004, 128), découvert d'ailleurs à peu près à l'époque où Troyon aquarellait ses planches à Londres . . . Barry Raftery (1984, 175–81) le considère, avec la plupart des auteurs, comme une pièce importée peut-être du Rhin moyen, attribuable à La Tène B2, soit entre la fin du IVe et la première moitié du IIIe s. av. J.-C.

Quant au non moins célèbre torque en or du dépôt de Brough, il s'apparente à une «famille» de parures plus récentes, de la fin de La Tène, bien représentée sur le Continent également (Raftery 1984, 181ss).

Le torque torsadé de Lisnacrogher en revanche (Raftery 1984, fig. 94, 1; 2004, 128), à coup sûr d'origine insulaire, est comparable à l'exemplaire dessiné par Troyon (Fig. 4, 4). La datation de ce type de parure n'est assurée que dans de rares cas d'associations comme l'a montré Raftery (1984, 179–81); et même si le second torque de Clonmacnois est torsadé, malgré ses extrémités sphériques creuses fort différentes, rien ne permet de proposer une telle association.

Nous ne poursuivons pas la réflexion plus avant. Comme nous l'avons annoncé en préambule, cette brève note n'a d'autre but que de faire connaître les aquarelles de Frédéric Troyon, inédites en majorité, et dans ce cas aux archéologues spécialistes de Protohistoire irlandaise à qui nous laissons le soin, s'il y a lieu, d'en tirer les enseignements, comme c'était le projet initial de notre ami Barry Raftery, à qui ces lignes sont dédiées.

Acknowledgements

C'est à l'occasion d'une visite en Suisse et à Lausanne de Barry Raftery, au début de l'année 1985, que le projet d'un article commun avait germé. Comme il nous l'écrivait le 6 février 1985 (en allemand selon une habitude continentale prise lors des discussions avec nos collègues de l'Europe de l'Est plus particulièrement).

'Ich hoffe dass du unseren gemeinsamen Aufsatz über Frederic Troyon im Auge hältst. Ich habe mit dem Redakteur des *Journal of the Royal Society of Antiquaries of Ireland* darüber gesprochen und er hat die Idee sehr begrüsst. Ferner hat er gesagt, wenn wir ihm ein Manuskript bis Mitte April einreichen könnten, so gäbe es die Möglichkeit die Seite vom Troyon-Buch farbig zu drucken!'

Et le 8 mars 1985:

'Für deine zwei Briefe danke ich dir herzlich—besonders für die Farbbilder der Troyon-tafeln. Über unseren gemeinsamen Aufsatz habe ich mir Folgendes überlegt: es lohnt sich nicht rasch und gehetzt zu schreiben, und es eilt uns nicht. Lassen wir es vorläufig—und schreiben wir für die übernächste Nummer des *JRSAI*. Das heisst, wir sollten ein Manuskript etwa bis Ende dieses, oder Anfang des nächsten Jahres fertig haben.'

Le manuscrit en question s'est fait attendre . . . l'un et l'autre étant engagés dans de nombreuses activités, qui nous ont fait oublier ce projet d'article commun!

Nous remercions Mary Cahill, John Ó Néill (pour James Cove Jones) et Katharina Becker pour les informations complémentaires qu'ils nous ont fournies.

Bibliographie

- Birch, S. 1846 On the torc of the Celts. *Archaeological Journal* 3, 27–38.
- British Museum 1904 *A guide to the antiquities of the Bronze Age in the Department of British and Mediaeval Antiquities*. Oxford University Press.
- Cahill, M. 1994 Mr Anthony's bog oak case of gold antiquities. *Proceedings of the Royal Irish Academy* 94C, 53–109.
- Cahill, M. 2006 John Windele's golden legacy—prehistoric and later gold ornaments from Co. Cork and Co. Waterford. *Proceedings of the Royal Irish Academy* 106C, 219–337.
- Eogan, G. 1994 *The accomplished art. Gold and gold-working in Britain and Ireland during the Bronze Age (c. 2300–650 BC)*. Oxford. Oxbow.
- Eogan, G. 2000 *The socketed bronze axes in Ireland*.

- Prähistorische Bronzefunde IX, 22. Stuttgart. Franz Steiner Verlag.
- Franks, A. 1852 The collection of British antiquities in the British Museum. *Archaeological Journal* 9, 7–15.
- Hautenuave, H. 2005 *Les torques d'or du second Age du Fer en Europe: techniques, typologies et symbolique*. Université de Rennes 1. Rennes.
- Jacobsthal, P. 1944 [reprinted 1969] *Early Celtic art*. London. Oxford University Press.
- Kaenel, G. 1990 *Recherches sur la période de La Tène en Suisse occidentale. Analyse des sépultures*. Cahiers d'archéologie romande 50. Lausanne.
- Kaenel, G. and Crotti, P. (eds) 2004 *Les Lacustres: 150 ans d'archéologie entre Vaud et Fribourg*. Document du Musée cantonal d'archéologie et d'histoire. Lausanne.
- Kaaser, M.-A. 2000 *A la recherche du passé vaudois: une longue histoire de l'archéologie*. Document du Musée cantonal d'archéologie et d'histoire. Lausanne.
- Kaaser, M.-A. 2001 Troyon, Frédéric (1815–1866). In T. Murray (ed.), *Encyclopedia of Archaeology: history and discoveries*, vol. III, N–Z, 1274–5. Santa Barbara. ABC-CLIO.
- Leitz, W. 2002 *Das Gräberfeld von Bel-Air bei Lausanne. Frédéric Troyon (1815–1866) und die Anfänge der Frühmittelalterarchäologie./La nécropole de Bel-Air près de Lausanne. Frédéric Troyon (1815–1866) et les débuts de l'archéologie du haut Moyen Âge*. Cahier d'archéologie romande 84. Lausanne.
- Raftery, B. 1984 *La Tène in Ireland. Problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 2004 *Pagan Celtic Ireland. The enigma of the Irish Iron Age*. London. Thames and Hudson.
- Ramsey, G. 1989 Middle Bronze Age weapons in Ireland. Unpublished Ph.D thesis, Queen's University, Belfast.
- Troyon, F. [n.d.] *Album*. Recueil d'aquarelles inédites, Musée cantonal d'archéologie et d'histoire, Lausanne, vols I–III.

Investigation of the find-spot of the Tamlaght hoard, Co. Armagh

Phillip Macdonald and John Ó Néill

Background to the investigation

This paper will report on the results of the investigation of the find-spot of a hoard containing copper-alloy sheet vessels, a sword and ring at Tamlaght in the environs of Navan Fort, Co. Armagh, a site well known to Barry Raftery, one of the original members of the Navan Research Group. A full account of the circumstances of discovery has been given elsewhere (Warner 2006). Briefly, it was found, and lifted, by a metal-detectorist, Seán McGirr, on Thursday 19 February 2004 and promptly reported to Greer Ramsey of Armagh County Museum. The hoard consisted of a native late Bronze Age sword, a plain copper-alloy sheet vessel of central European origin, decorated vessel fragments, including a handle, and a copper-alloy ring. As the hoard was considered potential Treasure, excavation was necessary to facilitate completion of a report for the coroner. The hoard was subsequently declared Treasure at inquest and acquired by the National Museums Northern Ireland.

Tamlaght lies within the drumlin belt that extends from the uplands of south and east Armagh to the south of Lough Neagh. The hoard was recovered from a small trapezoidal-shaped field in a short valley formed by two north/south-aligned drumlin ridges (Irish Grid Reference H 8293 4486; Fig. 1). The field is bounded on the east by a northwards-flowing stream, on the north and south by silted-up flax dams, and on the west by an overgrown hedge. Although improved by cultivation and drainage, the find-spot remains a boggy area and probably formed part of an inter-drumlin bog in antiquity. The site is located approximately 0.8km to the south-west of Haughey's Fort, just beyond the western edge of the so-called 'Navan Complex' (e.g. see Warner 1994, 39, fig. 1). The location of the Tamlaght hoard falls about 70m to the west of the limits of this area. The sites in this area that are known to be broadly contemporary with the Tamlaght hoard are Haughey's Fort and the King's Stables. Both of these sites lie within the 'Navan Complex', and within a 1km radius of the find-spot of the hoard.

Excavation

Archaeological excavation at the site of the hoard took place between Friday 27 February and Tuesday 2 March 2004 (under licence no. AE/04/33). The excavation was undertaken, on behalf of the then Environment and Heritage Service: Built Heritage (who funded the investigations), by John Ó Néill and Philip Macdonald for the Centre for Archaeological Fieldwork, Queen's University, Belfast. The excavation consisted of a rectangular trench centred on the area disturbed by the metal-detectorist during his lifting of the hoard¹ (Pl. 1).

Initially, the backfill (C102) of the hole (C103) dug by the detectorist was re-excavated. The finder's account of the discovery suggested that the sword was lying almost horizontally and aligned approximately north-north-west/south-south-east, with its tip to the north-north-west. The two vessels were positioned immediately to the south-south-east of the sword's hilt, with the decorated vessel fragments placed inside the larger vessel. Excavation confirmed the accuracy of the finder's account. The hole excavated by the detectorist was 1.1–1.15m long (north-north-west/south-south-east), 0.3–0.41m wide (west-south-west/east-north-east) and had a maximum depth of 0.32m. It was nearly rectangular in shape, but at its south-south-east end the cut formed a slightly deeper, polygonal hollow, presumably to facilitate the removal of the intact vessel and its contents. The backfill (C102) was largely restricted to the southern end of the cut. The disturbed turfs at the northern end of the trench had been redeposited directly onto the undisturbed peaty subsoil (C104) upon which the sword had been resting. A fragment of a copper-alloy sheet vessel was recovered during the excavation of the backfill (C102). All of the backfill was excavated as a sample with a view to recovering other fragments of the hoard through its flotation. Three fragments of the sword's hilt and three sheet fragments from the vessels were recovered during the processing of the sample.

Examination of the undisturbed peaty subsoil (C104) underlying that part of the trench containing the sword revealed traces of a black organic surface, which was initially

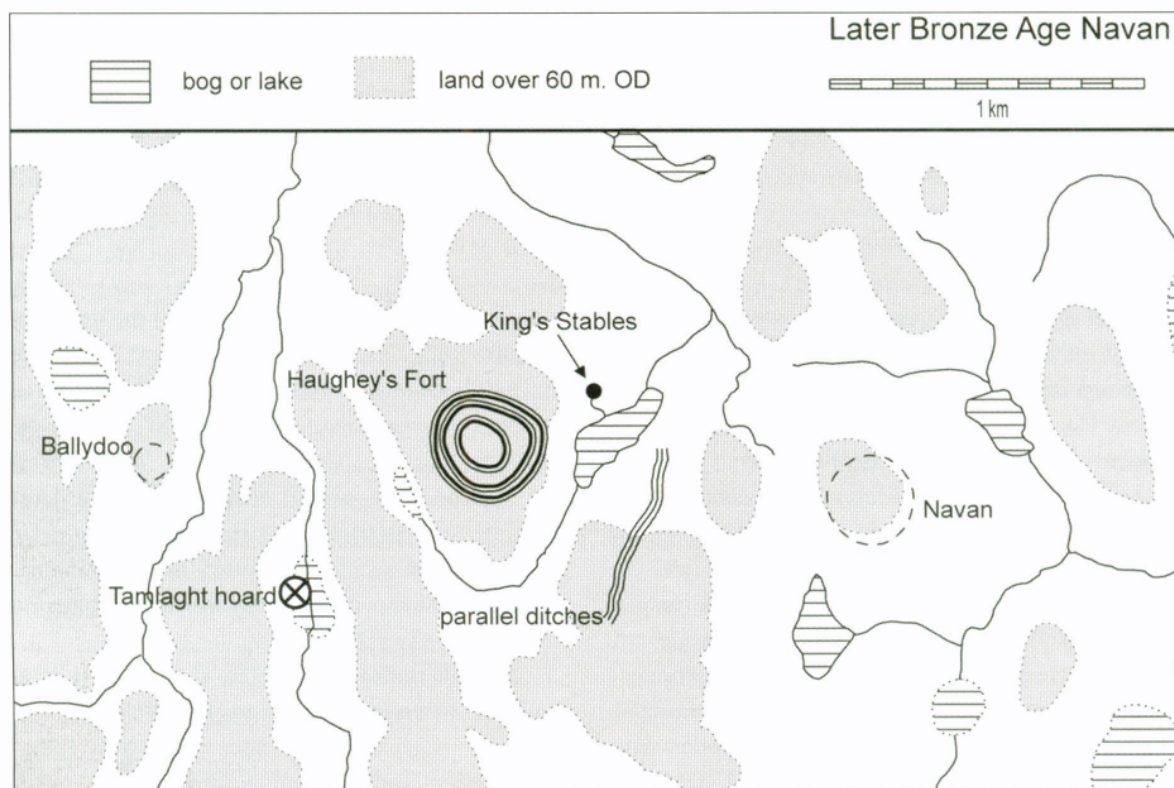


Fig. 1—Map showing key sites in the Navan Fort area that are mentioned in the text (after Warner 2006).

thought to represent the remains of a scabbard or sheath (Pl. 2). This possible scabbard or sheath was subsequently lifted as a block with a view to its excavation in laboratory conditions. Investigative conservation of the block by Malcolm Fry (Northern Ireland Environment Agency: Built Heritage) was unable to ascertain the origin of this black organic surface (R. Warner, pers. comm.), and it is currently uncertain whether it represented organic matter which had become compressed by the weight of the sword following its deposition (R. Warner, pers. comm.) or was the remains of a leather or wooden scabbard.

Following the investigations of the hole dug by the detectorist (i.e. C103), a rectangular-shaped trench was opened up around the find-spot (dimensions 2.4m by 1.95m, longest sides aligned north-north-west/south-south-east; see Pl. 1). The uppermost deposit was a humic cultivation soil (C101), approximately 0.2m deep, which contained three sherds of eighteenth/nineteenth-century pottery. At the southern end of the trench, the cultivation activity represented by this deposit had truncated (C106) the surface of the natural yellow boulder clay (C105).

Stratigraphically, underlying the cultivation soil (C101) was a peaty subsoil (C104) within which the hoard had been deposited. At the point where the hoard was deposited, the peaty subsoil was 0.24m deep. There was a depth of approximately 0.1m of peaty subsoil below the level at which the hoard had been deposited. No evidence for a cut or any other type of feature that could be associated with the hoard was observed during the excavation of the peaty subsoil (C104). Processing of samples taken from the peaty subsoil (C104) produced several small copper-alloy sheet vessel fragments. The peaty subsoil overlay the natural yellow boulder clay (C105), which had a relatively flat surface throughout most of the trench but rose steeply towards the southern end to the level at which it had been truncated by cultivation. This suggests that the hoard was deposited into the peaty subsoil from an immediately adjacent area of higher, and presumably drier, ground. Two conjoined, irregular-shaped linear discontinuities (C107) set across the rise in the surface of the yellow boulder clay were possibly tracks of tree roots. The hoard was located immediately adjacent to these features, suggesting that, if they were



Pl. 1—Find-spot of the Tamlaght hoard viewed from the north-west. All soils have been removed from the trench other than an artificial pedestal of peat left to indicate original position of the finds (in the centre of the image), with former position of the tip of the sword nearest to the camera and the vessels on the other side of the hilt. Note the rise in the pre-bog surface (© QUB/CAF).

contemporary, the position of the possible tree may have been significant in selecting the location of the hoard's deposition.

The composition of the Tamlaght hoard

While the conservation of the Tamlaght hoard by the Northern Ireland National Museums has yet to be completed, the investigation of the find-spot has shed additional light on the composition and context of the hoard. The original deposition at Tamlaght appears to have involved the placement of an apparently sheathed sword with its fittings and a bronze vessel containing either a second vessel or vessel fragments into wet ground at the

margins of an inter-drumlin bog. Excavation confirmed the accuracy of the finder's account concerning the relative position of the artefacts: the sword was lying nearly horizontal and aligned approximately north-north-west/south-south-east, with its tip to the north-north-west; the intact vessel was positioned immediately to the south-south-east of the sword's hilt, and contained within it numerous fragments of one or more decorated vessels. All of the artefacts had been damaged, to a greater or lesser degree. This damage is apparently of relatively recent origin and is probably a result of either plough or spade cultivation rather than the act of discovery.

The contents of the hoard are as follows.

A copper-alloy sword (Pl. 3) with a leaf-shaped blade of



Pl. 2—Traces of possible scabbard/sheath present beneath former position of the sword; the tip of the sword would have lain at the right of the image (photograph reproduced courtesy of the Trustees of National Museums Northern Ireland).

pointed-oval cross-section, with a step approximately 1.5mm from the edge. The area around the tang and butt is fragmentary and damaged, although only a small part is actually missing. The tang has prominent flanges, three irregular rivet holes (diameters 5–5.5mm) in the centre of its web and expands from both ends, reaching its maximum width closer to the butt than to the terminal. The tang's terminal is straight-ended. The wings of the relatively wide butt are straight and perforated by three irregular rivet holes on each side (diameters 3.5–5.5mm). Under the slightly rounded tips of the butt the sides curve to form a concave ricasso. The central thickening of the butt is well defined. There is a slight fold midway along the length of the blade. An

example of Eogan's class 3 type of sword (1965, 10, 32, fig. 2), although Warner prefers to regard it as a transitional, local variant lying between Eogan's class 2 and class 3 (Warner 2006, 20).

Copper-alloy sheet vessel (Pl. 4), distorted and with a small section of rim detached (maximum diameter approximately 180mm). The vessel has a slightly everted rim, a straight neck and a bulbous, squat body. Its base is omphaloid with a prominent 'foot-ring' around the hollow. The vessel was not furnished with a handle. Probably an example of a Fuchsstadt-type vessel (cf. Sprockhoff 1930, 67).

Numerous fragments of one, or possibly more, decorated copper-alloy sheet vessels found inside the undecorated

vessel (Pls 4–6). Study of the largest fragments suggests that they were derived from a vessel about 150mm in diameter which had a slightly everted rim, a straight neck decorated with a row of repoussé bosses, a short shoulder and a slightly convex body decorated with at least a pair of alternating rows of bosses and small punches. Fragments of the lower part of the vessel are decorated with horizontal repoussé ribs and furnished with the remains of an omphaloid base. A detached strap handle, now broken into two pieces, is decorated with longitudinal grooves and an incised herring-bone pattern. The fragments are probably derived from an example of a Jenišovice-type vessel or vessels (cf. Sprockhoff 1930, 57).

Copper-alloy ring (Pl. 6), plano-convex in section (diameter 25mm). One large facet of differential wear is visible on the inner edge. Possibly associated with the suspension of the scabbard/sword.

Although a number of fragments of the sword's tang and butt were recovered, both by the finder and during the processing of soil samples taken during the subsequent excavation, none of the sword's nine rivets were recovered, suggesting that its handle was dismantled prior to deposition. The only other examples of associated class 3 swords are from the Youghal hoard, Co. Cork, where two class 3 swords were found with two plain leaf-shaped spearheads that cannot be typologically closely dated (Armstrong 1921–4, fig. 6).

Owing to the lack of associated material, the only date that could previously be suggested for the class 3 swords was that provided by comparison with finds from Britain and the European mainland. Typologically, the closest British parallel to the class 3 swords are the Wilburton-type variants (Eogan 1965, 19; Colquhoun and Burgess 1988, 40–53), which are in turn comparable to Continental Lokrasand Forel types (e.g. Schauer 1971). Where these are found in association with other objects it is generally in large hoards, such as those found at Wilburton, Isleham and Blackmoor (e.g. various listings in Colquhoun and Burgess 1988, 40–53). Current dating of these phases puts Wilburton and Hallstatt B1 in the mid-twelfth to eleventh century BC (Needham 1996, 134–6; Needham *et al.* 1997, 90–3; Harding 2000, 15–16) and suggests that class 3 swords probably relate to the broadly contemporary Irish Roscommon metalwork phase. The possible scabbard beneath the sword provides an additional link to material of this phase, as its tapering shape

resembles the so-called tongue-shaped chapes from the Roscommon hoard (e.g. Waddell 1998, fig. 81.2–4).

The function of the ring is uncertain, but the large differential wear facet on its inner edge is consistent with its use for suspension. It is uncertain whether it was originally associated with the sword, the Fuchsstadt-type vessel or the Jenišovice-type vessel, although an association with the sword and scabbard seems plausible.

The undecorated vessel appears to be an example of a Fuchsstadt-type vessel, as originally defined by Sprockhoff (1930, 67). These usually have band-shaped handles that widen at both ends and extend over to the inside of the rim, attached to both the body and the neck by two rivets (Gedl 2001, 16), which distinguishes the group from an earlier, Friedrichsruhe type that has only a single rivet at either end of the handle (e.g. Sprockhoff 1930, 51). Fuchsstadt-type vessels have been identified across much of central Europe, where they are given a Hallstatt A2/B1 date (e.g. Patay 1990, 57–8; Kytlicová 1991; Nekvasil and Podborský 1991; Prüssing 1991, 22–4; Jacob 1995, 23–32; Gedl 2001, 16–17). They have also been noted in Denmark and France (Sprockhoff 1930, Taf. 19), Norway and Romania (Childe 1948, 195, fig. 8).

Thrane (1975, 136–7) divided the Fuchsstadt type into four variants (labelled 1–4), using vessel form as the main criterion to distinguish his subtypes, although Jacob (1995) discussed and modified this classification, restricting discussion of the Fuchsstadt type to those examples with a foot-ring and a handle that widens at both ends, where it is fastened by two conical rivets. Jacob does include a miscellaneous group including those without handles (1995, 32), and the Tamlaght vessel appears to be consistent with this group and with Thrane's Fuchsstadt-type variant 1.

None of the previous subdivisions of the Fuchsstadt-type vessels specifically covers handle-less examples. Only three vessels without handles have been considered examples of the Fuchsstadt type. Those from the Stockheim hoard (Jacob 1995, no. 30) and from a burial mound at Hundesingen (*ibid.*, no. 32) are both fragments. The only other complete example was recovered from a grave within a stone setting at Burladingen in Baden-Württemberg (*ibid.*, no. 31). While the three examples quoted above were all recovered from sites in southern Germany, it should be noted that there is no comprehensive corpus of Fuchsstadt-type vessels from areas such as eastern Germany, France and Switzerland, where some examples of the type have been previously noted (e.g. Sprockhoff 1930, Taf. 19; Childe



Pl. 3—The two main fragments of the copper-alloy sword from Tamlaght (photograph reproduced courtesy of the Trustees of National Museums Northern Ireland).



Pl. 4—Fuchsstadt-type vessel, as recovered at Tamlaght, containing decorated vessel fragments (photograph reproduced courtesy of the Trustees of National Museums Northern Ireland).

1948, fig. 8; Thrane 1975, fig. 81). A fragment of a handle-less copper-alloy sheet vessel in a hoard from Tårup, Denmark, appears to be earlier in date and is too incomplete for a definitive statement as to its morphology (Thrane 1966, 160).

The copper-alloy sheet fragments appear to derive from a decorated vessel (or vessels) of Jenišovice type, which Gedl (2001, 17) has defined as vessels with a double-conical body and a high shoulder beneath an everted neck. Laser tomography of the peat fragments within the larger vessel (see Warner *et al.* 2004, 23) appears to suggest that the Jenišovice vessel was complete when placed inside the Fuchsstadt vessel. Until a full programme of investigative conservation of the hoard is complete, however, it may not be possible to ascertain whether fragments of one or more vessels are present.

This type was originally recognised by Sprockhoff and named the Kirkendrup type after a Danish example (1930, 57); the term Jenišovice was subsequently coined by Childe (1948, 181), who commented that Sprockhoff's type was 'unhappily named after a single northern outlier of a distinctly Danubian group'. The Jenišovice-type vessel has been identified over much of central Europe (e.g. Patay 1990, 59–64; Novotná 1991, 26–38; Kytlicová 1991, 44–55; Prüssing 1991, 24–6; Nekvasil and Podborský 1991, 3–7; Gedl 2001, 17–19), where they are attributed to the Hallstatt B1 phase. Earlier distribution maps of the Jenišovice/Kirkendrup type also include finds in Denmark, France and Switzerland (Sprockhoff 1930, Taf. 17), Romania (Nestor 1935) and Italy (Childe 1948, fig. 8).

A number of variants of the Jenišovice type have been proposed (Thrane 1966; 1975; Patay 1990, 59–62; Kytlicová 1991, 44–6; Novotná 1991, 36), mainly based on whether or not the vessels are decorated and whether a handle is present. The Jenišovice-type vessel from Tamlaght should be considered as similar to Thrane's variant 3 (1975), owing to the V-shaped foot-ring, the line of bosses around the vessel's neck and the two lines of bosses around its body. Thrane lists similar vessels from Dahmen and Kl. Luckow, Hermsdorf (Seiffenau), Jenišovice, Biskupice, Biernaccice and Øgemosen 1. Of the examples mapped by Thrane (1966, 171), this group of vessels all lie to the north of the Carpathians on the northern European plain.

The importance of contacts between Ireland and north-west Germany and southern Scandinavia in the late Bronze Age, as largely demonstrated by the evidence for the importation of amber and metalwork types, has been

emphasised by Eogan (1994, 95–6; 1995), although the significance of these contacts has been questioned by some (e.g. Butler 1963, 228–9; Savory 1971, 258; Thrane 1975). Eogan (1995, 130–3) identified evidence for external contacts in both the Bishopsland and Dowris phases but considered that there was a near hiatus in such contacts during the intermediate Roscommon phase. Prior to the discoveries at Tamlaght, the earliest contacts with southern Scandinavia were dated to the Dowris phase and consisted of imported amber, disc-headed pins with both straight and bent stems, 'dress-fasteners', annular bracelets, horns, and possibly gold vessels and boxes, the Lattoon disc, gorgets, 'sleeve-fasteners' and U-notched shields (*ibid.*, 133). In addition, Eogan speculated that it was possible that some widespread European decorative features found on Irish objects, such as concentric circles and conical projections, had their background in the Nordic region. The evidence from the Tamlaght hoard, combined with a possible Jenišovice vessel handle from Haughey's Fort (see Warner 2006, 24), goes some way towards dispelling Eogan's suggestion of a hiatus in external contacts during the Roscommon phase. It also presents a horizon of limited imports, possibly derived from the Baltic region, which prefigure the wider range of imported items dated to the subsequent Dowris phase.

There are no known examples of Fuchsstadt-type or Jenišovice-type vessels from Britain. A small number of cast copper-alloy bowls, of broadly similar date, have been identified in Scotland (Coles 1959–60) and at Welby in England (Powell 1948), although these are unrelated to the sheet copper-alloy vessels.

It is easier to identify evidence for long-term contacts in prehistory than it is to interpret their nature and cause. It is not certain whether the exotic items in the Tamlaght hoard are the product of the movement of people, trade or commercial contacts, the spread of ritual practices or gift exchange. Nevertheless, the number of exotic items dating from the Roscommon and Dowris phases of the late Bronze Age is so small as to make it unlikely that they represent the product of intensive trading or exchange across the North Sea. As the relevant Scandinavian types do not occur in Britain, a system of direct exchange routes probably existed (Eogan 1995, 134), despite the difficulties inherent in direct crossings of the North Sea during the Bronze Age (Thrane 1995, 149). Eogan's (1995, 134) suggestion that the north-east of Ireland may have been an area that initially received south Scandinavian types, as the primary form of disc-



Pl. 5—One of the fragments of the Jenišovice-type vessel recovered from Tamlaght (photograph reproduced courtesy of the Trustees of National Museums Northern Ireland).

headed pins and 'sleeve-fasteners' are more numerous in that area, is strengthened by the recovery of the Tamlaght hoard and the identification of the possible Jenišovice vessel handle from Haughey's Fort (Warner 2006, 24).

The depositional context of the Tamlaght hoard

The Tamlaght hoard appears to have been deposited from dry ground into an inter-drumlin bog. At the time of excavation, the peat underlying the hoard was 0.1m deep (Pl. 1). The small inter-drumlin bog in which it was found had been drained and reclaimed, apparently for use in flax cultivation. While no plant remains were visible in the highly humified minerotrophic peat, it was consistent with formations that occur in wooded, sedge-rich lake and bog margins. As described above, the hoard appears to have been deliberately arranged in an area of fenland where sedges were

growing on top of at least 0.1m of peat immediately adjoining an area of dry ground. No formal cut was noted on excavation, so the objects may have been pushed into the wet ground, the sheathed sword pointing roughly in the direction of Ballydoo, to the north-north-west but obscured by an intervening ridge, with the vessels placed between the hilt of the sword and the dry ground. Whilst it is possible that there was a tree standing beside where the deposition occurred, no evidence was found of an artificial marker or of another depositional event in the immediate vicinity.

The Tamlaght find is the second late Bronze Age hoard to be excavated in Ireland in recent years, following the 1995 recovery of the Killymoon hoard during investigations of a high-status late Bronze Age settlement (Hurl 1995, 26–7; Hurl *et al.* 2005, 50). Superficially, both finds are from wet contexts, but the Killymoon hoard appears to have been recovered from a context that has been interpreted as overlying a brushwood layer that formed part of the occupation horizon (Hurl *et al.* 2005, 36).



Pl. 6—The ring found at Tamlaght (left) and two handle fragments from the Jenišovice-type vessel (photograph reproduced courtesy of the Trustees of National Museums Northern Ireland).

Despite the emphasis placed on the 'wet' context of many hoards, the intimate contextual background to the deposition of most Irish late Bronze Age hoards is largely unrecorded. Eogan provides the recorded depths of a number of hoards from the surface of 'bogs' (1983, nos 40, 47, 59, 68, 91, 119, 121, 125, 144, 146). But in these cases there is no way of determining the location of the find above the base of the peat, such as at Tamlaght, which may be a better reflection of the sites' proximity to the margins of the actual wetland in which they were deposited.

Where recorded elsewhere, many hoards appear to have been deposited in relatively shallow amounts of peat. Where reasonably specific contextual information has survived, such as Ballycurrin Demesne, Co. Mayo, the hoard appears to have been less than six inches (approximately 0.15m) above blue marl that underlay the peat (Eogan 1983, 107), while at Cromaghs, Co. Antrim, the hoard was a few inches (approximately 0.1m) above the gravel bottom of the bog (*ibid.*, no. 38). The hoards from Gardenhill, Co. Fermanagh (Hartnett 1953), near Frankford, Co. Offaly (Eogan 1983, no. 120), Tooradoo, Co. Limerick (*ibid.*, no. 103), and possibly Lattoon, Co. Cavan (*ibid.*, no. 53), all appear to be from the actual base of the bog. Rarely are hoards specifically

identified as being placed in peat of significant depth, although this seems to have been the case with the Ballykeaghra hoard, from Galway, which was found at 1.5m above the basal sand layer of a bog (*ibid.*, no. 83).

Tamlaght, deposition and the Navan landscape

The landscape around Navan Fort is one of the most heavily studied in Ireland, with attention being focused on the close proximity of several prehistoric monuments, mostly located between the enclosures of Haughey's Fort and Navan Fort; the identification of Navan Fort with 'Emain Macha' in Irish mythology; and the analogy between Emain Macha and other 'royal sites' such as Ráth na Ríogh at Tara and Dún Ailinne (e.g. see Mallory 1987; Warner 1994; Lynn 2003). The idea of a 'ritual landscape' in the Navan area was developed by Dudley Waterman following the excavation of the King's Stables in 1975 (Waterman 1997, 216; Lynn 2003, 65), which, combined with the campaign against quarrying at Navan, led to the foundation in 1986 of the Navan Research Group, who have now produced more than

twenty volumes of the journal *Emania*. It has been argued, by analogy with other late prehistoric 'royal sites', that the principal monuments in the Navan area are best regarded as part of a wider archaeological landscape rather than as individual sites (Warner 1994, 42).

The significance of the relationships between monuments and finds of different date in the Navan area is an important interpretive issue. It is unlikely that the archaeological evidence represents long-term continuity of ritual practice and religious belief in the area. Environmental evidence suggests that there were periods when the clearance of the area was not maintained (for example, between the occupation of Haughey's Fort and Navan Fort; cf. Mallory 1995, 78–9), and Mallory and Lynn (2002, 540) prefer to see the phenomenon of the Navan complex as evidence of formal recreations of earlier monuments, where earlier architectural targets were reinvented to serve later ideological needs.

It has also been argued that the construction of one ritual monument encouraged use of the area for others at a later date (Lynn *et al.* 1997, 3), and excavation has produced evidence of the past being either integrated or re-enacted at later sites in the Navan complex (e.g. the deposition of an earlier prehistoric cup-and-ring-marked stone in a late Bronze Age context at Haughey's Fort, and the use of a hengiform enclosure to enclose the Iron Age site at Navan Fort). It is also possible that the construction of the 40m structure at Navan was partly an attempt to architecturally mimic a Neolithic passage tomb (Mallory and Lynn 2002, 540).

As noted above, the date of the Tamlaght hoard suggests that it is contemporary with the construction and occupation of Haughey's Fort and the King's Stables and with a number of stray finds from the area. A late prehistoric phase of activity on the hilltop at Ballydoo, 600m to the north-west of Tamlaght, has also been suggested, although the evidence is slight and circumstantial (Warner 2006, 23; see also Lynn 2003, 96). An interrupted, double linear ditch feature, extending over a distance of approximately 1.7km in the Navan landscape, produced a number of sherds of late Bronze Age pottery from the basal fill of one of its ditches (see Conway 2006, 33). Unfortunately, the pottery is not closely dated, and its exact date within the late Bronze Age cannot be suggested with any confidence.

Prior to the discovery of the Tamlaght hoard, the King's Stables was seen as the focus of depositional activity in this landscape. A review of the evidence now suggests that a

much wider repertoire of late Bronze Age depositional activity took place. The composition of the artefacts that were deposited in the artificial pool at the King's Stables—mould fragments for swords with leaf-shaped blades, a large amount of animal bone and the facial part of a possibly redeposited human cranium—led the excavator to conclude that the site was a focus for ritual deposition and activity (Lynn 1977, 54–6). Charcoal from the old ground surface sealed by the site's enclosing bank produced a radiocarbon date calibrated at 95.4% probability of 1130–790 BC (*ibid.*, 53, UB-2123), whilst two radiocarbon dates derived from twigs recovered from basal layers of the pools, calibrated at 95.4% probability, range from 1320 to 1010 BC (Lynn 1977, 53; UB-2157) and from 900 to 410 BC (*ibid.*; UB-2124). This series of slightly ambiguous dates is conventionally interpreted, when combined with the artefactual evidence, as indicating that activity took place at the site *c.* 1000 BC (Lynn 2003, 54).

A programme of high-precision radiocarbon dating of samples taken from Haughey's Fort suggests that occupation began *c.* 1100 BC and the site was probably abandoned within a century (Mallory 1995, 85). It is possible that a sheet copper-alloy fragment recovered from feature 277, one of a series of deep pits in the interior of Haughey's Fort (i.e. Mallory 1991, 21, fig. 16.5; 1995, 81, pl. 22), is part of a handle from another sheet copper-alloy vessel such as a bucket, although its decoration and dimensions are also consistent with a handle of Jenišovice type (Warner 2006, 24). These pits have been interpreted as possible settings for a double timber-ring structure that was subsequently dismantled. It is suggested that once the posts were removed, the pits filled up with occupational debris from the site. Charcoal from one of the adjacent pits produced a radiocarbon date, calibrated at 95.4% probability, of 1260–910 cal. BC (Mallory 1995, 78; UB-3386). This date would be consistent with the Continental dating evidence for the Jenišovice type. Mallory (1995, 84) has argued that the double-ringed timber structures at Haughey's Fort, combined with the absence of any evidence for domestic structures, suggest that the site was primarily a focus of ritual activity. In addition to the possible bucket or Jenišovice-type handle, material recovered from excavations at the site included a cup-and-ring-marked stone that was probably votively deposited (Aitchison 1998; Corlett 2000; Lynn 2003, 69, fig. 42).

A number of stray and loosely provenanced finds from the Navan landscape published in the schedules of finds have

been dated to the late Bronze Age (Warner 1986; 1994; 2006). Late Bronze Age finds in these schedules include material from the excavations as well as two socketed axes, ACM 1922.1289A (NCF13) and ACM 169.1998 (NCF56), and a lost decorated gold neck-ring found 'near Crieve-row' (NCF36) and, judging by its illustration (Stuart 1819, 512), apparently of Berzocana type (Eogan 1994, 66, figs 30–1). Another example of exotic late Bronze Age metalwork in the area is the disc-headed sunflower pin from Haughey's Fort, which was recovered from an upper fill (layer C) of what is possibly either one of the terminals of the inner ditch or one of a series of pits marking the inner perimeter of the site (Mallory *et al.* 1996, 12, fig. 13; Mallory and Lynn 2002, 535). Owing to the absence of insular prototypes, Eogan (1974, 93–6) considered that the Irish disc-headed pins were derived from similar examples from the western Baltic or southern Scandinavian region, where they are a common Period V type. The associated examples of disc-headed pins in Ireland date from the Dowris metalwork phase (Eogan 1974, 95–7), which is broadly consistent with the North European Period V, suggesting that, even if it is an early imported example of the type, it is probably later in date than the Tamlaght hoard, despite the hoard's general contemporaneity with the date for Haughey's Fort. Given the good condition of the pin from Haughey's Fort, it is unlikely to have been residually deposited in what is presumably a relatively late upper ditch fill. Consequently, its probable later date should be considered consistent with its context of deposition.

It has been suggested that the disc-headed pin from Haughey's Fort was imported from the western Baltic region (R. Warner, pers. comm.). Even if the pin is not an import, Eogan's identification of the western Baltic region as an area that had contacts with Ireland in the late Bronze Age does highlight a potential source for the Fuchsstadt-type vessel and Jenišovice-type vessel in the Tamlaght hoard.

The validity of some 'Navan' provenances has been questioned, and Cormac Bourke has highlighted an example of forged antiquities being given a false 'Navan' provenance during the nineteenth century (cf. Anon. 1990). So the possibility that some of the artefacts listed in the schedules of stray finds from the Navan landscape have been given a false provenance to aid their sale cannot be discounted (for doubts about the validity of both 'Navan Rath' and 'near Armagh' provenances cf. Collins 1959; Eogan 2000, 21). Lax scholarship also appears to have played a part here, as the ascription of objects in the Craig Collection to 'near Navan

Fort' by Patterson and Davies (1940) has a footnote with a misleading reference to the finding of the Derryhale hoard (Eogan 1983, no. 44).

The number of finds that may have come from the Navan landscape is no doubt much higher than can now be confirmed. A significant proportion of the mid-nineteenth-century Armagh antiquarian John Corry's collection came from '... the Rath of Navan ...', where he could point out the find-spots (Hall 1842, 459). The National Museum of Ireland acquired some of his collection in 1906 (when it was sold by St Columba's College). In the same year, some material was acquired by the Royal Ontario Museum (see objects listed in Pryor 1980), apparently negotiated with the Royal Irish Academy by an 'L. Steele' (all original documentation is now lost). A number of the National Museum's 1906 acquisitions have the provenance 'near Armagh', including ten socketed axes, at least one sword (of Ballintober type) and a tanged knife. Of these, the axes were all part of the 1906 purchase, while the sword is stated to have come from St Columba's College in a 1913 acquisition when the knife was also acquired. The reprovenancing of many of these finds may no longer be achievable, but we can only assume that it would add dramatically to the instances of deposition in this landscape. This would further extend the media and repertoire of single/multiple, exotic/native and complete/broken finds known from this landscape.

Regardless of the limitations imposed on us by some of the evidence, depositional activity can now be recognised across a spectrum of contexts, reflecting the complex ways in which people meaningfully employed material culture in their activities within this landscape. Previously the eleventh- to twelfth-century BC phase of activity in the Navan area has been perceived as one of ritual activity and votive deposition in sacred spaces formalised by artificial enclosures. The discovery of the Tamlaght hoard suggests that votive deposition was also being undertaken in informal, natural locations at this time, and that a wider range of ritual activity than has hitherto been recognised was taking place.

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Note

- (1) In addition to this account, a data structure report on the excavation is available on-line at <http://www.qub.ac.uk/schools/CentreforArchaeologicalFieldworkCAF/Reports/DataStructureReports/Filetoupload,64264,en.PDF>.

References

- Aitchison, N. 1998 Late Bronze Age ritual at Haughey's Fort: the evidence of the deposited cup-and-ring marked stone. *Emania* 17, 31–9.
- Anon. (ed.) 1990 Notes and queries. *Emania* 7, 45.
- Armstrong, E.C.R. 1921–4 Some Irish Bronze Age finds. *Proceedings of the Royal Irish Academy* 36C, 1423–6.
- Butler, J.J. 1963 Bronze Age connections across the North Sea. A study in prehistoric trade and industrial relations between the British Isles, the Netherlands, North Germany and Scandinavia c. 1700–700 BC. *Palaeohistoria* 9, 1–286.
- Childe, V.G. 1948 The final Bronze Age in the Near East and in Temperate Europe. *Proceedings of the Prehistoric Society* 14, 177–95.
- Coles, J.M. 1959–60 Scottish Late Bronze Age metalwork: typology, distributions and chronology. *Proceedings of the Society of Antiquaries of Scotland* 93, 16–134.
- Collins, A.E.P. 1959 A polished discoidal knife from Navan Rath. *Ulster Journal of Archaeology* 22, 51.
- Colquhoun, I. and Burgess, C.B. 1988 *The swords of Britain*. Prähistorische Bronzefunde Abt. IV, Band 5. München. Beck.
- Conway, M. 2006 Survey and excavation in the Navan environs with 'Time Team'. Creeveroe, Haughey's Fort and Ballydoo. *Emania* 20, 29–52.
- Corlett, C. 2000 Cup-and-rings, and the mapping of Haughey's Fort: a suggestion. *Emania* 18, 77–8.
- Eogan, G. 1965 *Catalogue of Irish bronze swords*. Dublin. The Stationery Office.
- Eogan, G. 1974 Pins of the Irish late Bronze Age. *Journal of the Royal Society of Antiquaries of Ireland* 104, 74–119.
- Eogan, G. 1983 *The hoards of the Irish later Bronze Age*. University College Dublin.
- Eogan, G. 1994 *The accomplished art. Gold and gold-working in Britain and Ireland during the Bronze Age*. Oxford. Oxbow Books.
- Eogan, G. 1995 Ideas, people and things: Ireland and the external world during the later Bronze Age. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age. Proceedings of the Dublin Conference, April 1995*, 128–35. Dublin. The Stationery Office.
- Eogan, G. 2000 *The socketed bronze axes in Ireland*. Prähistorische Bronzefunde Abt. IX, Band 22. Stuttgart. Franz Steiner Verlag.
- Gedl, M. 2001 *Die Bronzegefäße in Polen*. Prähistorische Bronzefunde Abt. II, Band 15. Stuttgart. Franz Steiner Verlag.
- Hall, S. 1842 *Ireland: its scenery, character, &c.* London. How and Parsons.
- Harding, A. 2000 *European society in the Bronze Age*. Cambridge University Press.
- Hartnett, P.J. 1953 Late Bronze Age hoard from Garden Hill, Co. Fermanagh. *Journal of the Royal Society of Antiquaries of Ireland* 83, 101–3.
- Hurl, D. 1995 Killymoon—new light on the late Bronze Age. *Archaeology Ireland* 34, 24–7.
- Hurl, D., Nelis, E. and Murray, D. 2005 *Excavations at Killymoon, Co. Tyrone*. Centre for Archaeological Fieldwork Data Structure Rep. No. 37. Queen's University, Belfast.
- Jacob, C. 1995 *Die Metallgefäße der Bronze- und Hallstattzeit in Nordwest-, West- und Süddeutschland*. Prähistorische Bronzefunde Abt. II, Band 9. Stuttgart. Franz Steiner Verlag.
- Kytlicová, O. 1991 *Die Bronzegefäße in Böhmen*. Prähistorische Bronzefunde Abt. II, Band 12. Stuttgart. Franz Steiner Verlag.

- Lynn, C. 1977 Trial excavations at the King's Stables, Tray townland, County Armagh. *Ulster Journal of Archaeology* 40, 42–62.
- Lynn, C. 2003 *Navan Fort. Archaeology and myth*. Bray. Wordwell.
- Lynn, C.J., Flanagan, D. and Waterman, D.M. 1997 Introduction to the excavations at Navan Fort. In D. M. Waterman, *Excavations at Navan Fort 1961–71* (ed. C. J. Lynn), 1–11. Northern Ireland Archaeological Monograph No. 3. Belfast. The Stationery Office.
- Mallory, J.P. 1987 The literary topography of Emain Macha. *Emania* 2, 12–18.
- Mallory, J.P. 1991 Excavations at Haughey's Fort: 1989–1990. *Emania* 8, 10–26.
- Mallory, J.P. 1995 Haughey's Fort and the Navan complex in the Late Bronze Age. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age. Proceedings of the Dublin Conference, April 1995*, 73–86. Dublin. The Stationery Office.
- Mallory, J.P. and Lynn, C.J. 2002 Recent excavations and speculations on the Navan complex. *Antiquity* 76, 532–41.
- Mallory, J.P., Moore, D.G. and Canning, L.J. 1996 Excavations at Haughey's Fort 1991 and 1995. *Emania* 14, 5–20.
- Needham, S. 1996 Chronology and periodisation in the British Bronze Age. *Acta Archaeologica* 67, 121–40.
- Needham, S., Bronk-Ramsey, C., Coombs, D., Cartwright, C. and Pettitt, P. 1997 An independent chronology for British Bronze Age metalwork: the results of the Oxford Radiocarbon Accelerator Programme. *Archaeological Journal* 154, 55–107.
- Nekvasil, J. and Podborský, V. 1991 *Die Bronzegefäße in Mähren*. Prähistorische Bronzefunde Abt. II, Band 13. Stuttgart. Franz Steiner Verlag.
- Nestor, I. 1935 Ein Bronze-Depot aus Moigrad, Rumänien. *Prähistorische Zeitschrift* 26, 24–57.
- Novotná, M. 1991 *Die Bronzegefäße in der Slowakei*. Prähistorische Bronzefunde Abt. II, Band 11. Stuttgart. Franz Steiner Verlag.
- Patay, P. 1990 *Die Bronzegefäße in Ungarn*. Prähistorische Bronzefunde Abt. II, Band 10. München. Beck.
- Patterson, T. and Davies, O. 1940 The Craig collection in Armagh Museum. *Ulster Journal of Archaeology* 3, 70–2.
- Powell, T.G.E. 1948 The Late Bronze Age hoard from Welby, Leicestershire. *Archaeological Journal* 105, 27–40.
- Prüssing, G. 1991 *Die Bronzegefäße in Österreich*. Prähistorische Bronzefunde Abt. II, Band 5. Stuttgart. Franz Steiner Verlag.
- Pryor, F. 1980 *A catalogue of British and Irish prehistoric bronzes in the Royal Ontario Museum*. Toronto. Royal Ontario Museum.
- Savory, H.N. 1971 A Welsh Bronze Age hillfort. *Antiquity* 45, 251–61.
- Schauer, P. 1971 *Die Schwerter in Süddeutschland, Österreich und der Schweiz I* (Griffplatten-, Griffangel- und Griffzungenschwerter). Prähistorische Bronzefunde Abt. IV, Band 2. München. Beck.
- Sprockhoff, E. 1930 *Zur Handelsgeschichte der Germanischen Bronzezeit*. Berlin. De Gruyter.
- Stuart, J. 1819 *Historical memoirs of the city of Armagh*. Newry. Alexander Wilkinson.
- Thrane, H. 1966 Dänische Funde fremder Bronzegefäße der jüngeren Bronzezeit (Periode IV). *Acta Archaeologica* 34, 157–207.
- Thrane, H. 1975 *Europæiske forbindelser*. Copenhagen. Nationalmuseet.
- Waddell, J. 1998 *The prehistoric archaeology of Ireland*. Bray. Wordwell.
- Warner, R.B. 1986 Preliminary schedules of sites and stray finds in the Navan Complex. *Emania* 1, 5–9.
- Warner, R.B. 1994 The Navan Complex: a new schedule of sites and finds. *Emania* 12, 39–44.
- Warner, R. 2006 The Tamlaght hoard and the Creeveroe axe. Two new finds of Late Bronze Age date from near Navan, Co. Armagh. *Emania* 20, 20–8.
- Warner, R., Macdonald, P. and Ó Néill, J. 2004 Treasure in the bog. *British Archaeology* 7, 22–3.
- Waterman, D.M. 1997 *Excavations at Navan Fort 1961–71* (ed. C. J. Lynn). Northern Ireland Archaeological Monograph No. 3. Belfast. The Stationery Office.

The conundrum of Iron Age ceramics: the evidence of language

Jim P. Mallory

In the *Festschrift* for Ian Stead, Barry Raftery (1995) published his study of (the lack of) Iron Age pottery in Ireland. He rightfully employed the word 'conundrum' in his title as the article dealt with a very curious problem of Irish archaeology. Although Ireland had seen a succession of ceramic assemblages from the beginning of the Neolithic (*c.* 4000 BC) onwards, the manufacture of fired-clay vessels was apparently abandoned during the Iron Age. By *c.* 300 BC there is no site in Ireland that provides unequivocal evidence for the use of ceramic vessels, although clay was still employed (probably) for making moulds for casting bronze (Raftery 1995, 151). Such a collapse of material culture is unusual although not entirely unparalleled, as ceramics also disappeared from western Britain at this same time (Cunliffe 2005, 117–18). To continue the story, native wares did not reappear in Ireland again until the emergence of souterrain ware about the eighth century AD (Edwards 1990, 74), and here it was confined to the north-east corner of the island (Fig. 1a). Before this period the only ceramics known in Ireland are imported Mediterranean and Continental wares (A–E), primarily used for conveying wine or other commodities, and dating from the fifth–ninth centuries (Edwards 1990; Campbell 2007; Fig. 1b). Finally, with the coming of the Normans (and only then) most of the rest of Ireland again enters a ceramic culture.

In his account of the absence of Iron Age ceramics, Barry Raftery also made passing reference to the linguistic evidence, particularly the lack of a word in Old Irish for a ceramic (rather than wooden or metal) container. He cited personal communication from Fergus Kelly that emphasised that the earliest textual references to pottery occur within foreign contexts and the absence of a technical term for the 'potter' in Early Irish (cited in Raftery 1995, 152).

From the perspective of language, the archaeological evidence prompts a number of expectations or propositions.

- (1) No matter from where in space or time we wish to derive the Insular Celts, they should have come from a background where they possessed earthenware ceramics and the various cultural names to identify them. Linguistically, these will have been derived from their

inherited Indo-European or more recent Proto-Celtic past, or, possibly, as loanwords from non-Celtic/non-Indo-European native populations. As it is extremely probable that Ireland was largely (if not entirely) Celtic-speaking by the Iron Age, we might well ask whether the names for its ancestral ceramic terminology survived the disappearance of ceramics in Ireland during the Iron Age.

- (2) If the Celtic language spread through Ireland at any time after *c.* 1000 BC, we might also expect that it would have contained terminology associated with metal vessels, especially cauldrons, which were widely exchanged at the time. Unlike ceramic vessels, whose use had ceased during the Iron Age, one might expect that vessels of metal might have survived as lexical items into early Irish as these continued into the historic period.
- (3) Contact between Ireland and Roman Britain (or even non-Roman Scotland) would have placed the Irish in contact with ceramic-using cultures and we might expect possible loanwords during this period (Brittonic, Latin).
- (4) The importation of wine and other commodities (and occasionally fine table wares) in vessels from the Mediterranean (A–C wares) or the Continent (E wares; Campbell 2007) coupled with the ecclesiastical use of vessels should have led to the introduction of further loanwords (Latin) *c.* AD 500–800 (see Appendix 3).
- (5) By the eighth century AD the Irish did produce one form of earthenware ceramic in the north-east, i.e. souterrain ware, and this should have left some lexical mark in early Irish.
- (6) Major ceramic production in Ireland does not resume until the coming of the Normans, so we might expect substantial Romance (Appendix 2) or English loans (Appendix 1) in this semantic field.

The linguistic evidence

A survey of a database (www.qub.ac.uk/cessair) of entries in the Royal Irish Academy's *Dictionary of the Irish Language*

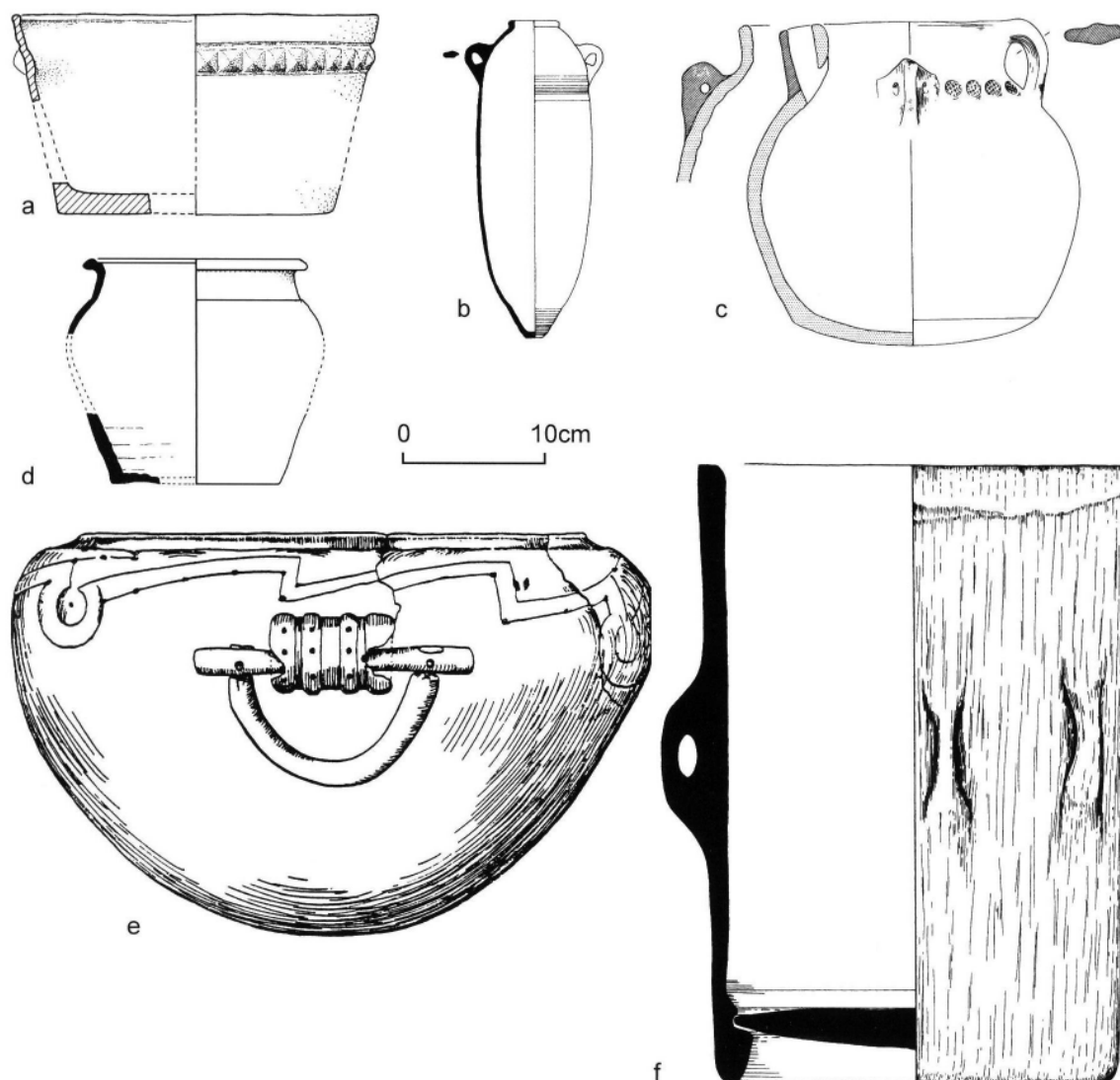


Fig. 1—Containers found in Ireland: (a) souterrain ware (after Edwards 1990, fig. 28, e); (b) late Roman wine amphora (after Campbell 2007, fig. 11, LR4); (c) Ipswich Ware pitcher (after Hurst 1976, fig. 7.8.1); (d) E-ware (after Campbell 2007, fig. 28, E39); (e) wooden cauldron from Altartate (after Earwood 1993, fig. 24); (f) wooden tub from Altanagh (after Earwood 1993, fig. 32.1).

(*DIL* 1913–76) indicates *c.* 150 terms (excluding derivatives and compounds) associated with vessels of wood, ceramic or metal. Unfortunately, a substantial minority of these, all those whose name begins between the letters E through L, can hardly be commented upon because they are not yet analysed in the *Lexique Étymologique de l'Irlandais Ancien* (*LEIA*), although some may receive passing comment in the *DIL*. An exhaustive review of the entire semantic field of 'container' would far exceed both the length of this article

and the competence of its author, and the following is intended only as a preliminary 'sampler' of what might be more profitably developed as a doctoral thesis. I wish only to provide some comments on what would appear to be the inherited (Proto-Celtic or earlier) vocabulary associated with containers in Irish and the possibility of identifying the Irish designation for its only native ceramic form, souterrain ware. Much of the linguistic evidence will be listed at the end of this article in a series of short appendices (Appendices 1–5)

that attempt to present the Irish lexicon pertaining to containers according to its probable linguistic origin.

Potter

As Fergus Kelly emphasises (in Raftery 1995, 153), a specific name for the potter is absent from the Irish law-texts that list the various occupations in early medieval Ireland, and when a word is needed to indicate a potter, such as in *MI 18^{b4} roth cruind forsandenat nacerda inna-lestrai* 'a round wheel on which the potters make the vessels', the potter is designated by the generic term *cerd* 'craftsman' rather than anything more specific. While it is (just) possible that the word *cerd* was most closely associated with the craft of the bronze-smith, whose duties would have included the manufacture of metal vessels in the Bronze and Iron ages, the context cited above clearly designates a craftsman working in clay.

On the other hand, there is another word that references the 'potter' *doilbthid*, which is cited in *Wb.* 4^c29, where it glosses Lat *figulus* 'potter' < Lat *fungo* 'I shape, fashion'. Its etymological origins are an interesting contrast with the Latin word it glosses. Lat *fungo* is derived from PIE **dheigh-* 'work clay', which is associated with the potter's craft in several Indo-European groups and is probably as close as we can get to the notion of fashioning a clay vessel in Proto-Indo-European. In Irish, however, the root only survives in the more general meaning of 'build' seen in OIr *con-utainc* 'builds' (< **com-uss-ding-*) which glosses such words as Lat *architector* 'to build, construct' (*Sg* 141^{a1}). OIr *doilbthid* 'potter' < *dolbaid* 'fashions, shapes, forms (often in the context of conjuring up although also associated with crafts, e.g., weaving)' derives from the same root as *delb* 'form, figure, shape' that goes back ultimately to PIE **del-* 'carve, split, cut'. In other IE languages the semantic field is either associated with or includes a cutting action, e.g. Latin *dolo* 'chip with an axe', Old Norse *telgja* 'carve', Albanian *dalloj* 'cut' and Greek *daidallo* 'work cunningly' (cf. the early Greek aeronautical engineer Daedalus); in Welsh the cognate *delw* generally means 'image' and early examples tend to involve the description of carved images. All this suggests an etymological history derived from woodworking, and its ascription to the potter's craft in Irish is apparently both very late and either long after its original etymological force was lost or, perhaps only just possible, the term was extended to the manufacture of ceramic vessels from wooden vessels which were certainly being fashioned during the Iron Age and subsequent periods.

Gaulish connections and inherited vocabulary

The linguistic ancestors of the Celtic branch possessed words for ceramic vessels and, at least on the Continent, one might have expected that the ceramic vocabulary continued. Unfortunately, it is difficult to compare the range of Continental Celtic terms for containers with those known in early Irish texts because of the extremely limited size of the surviving Gaulish vocabulary. From the lists of Gaulish names for material culture provided in Delamarre (2003), we note only five words associated with containers of some sort, which we will take in alphabetical order.

Gaulish *bascauda* 'bowl' survives in dialectal French, e.g. Normand *bachol*, where it indicates a 'wooden vat for carrying water', and its further links with Lat *fascis* 'faggot, bundle of faggots' suggest that it initially designated a woven container. The word is compared with Old Irish *basc* 'neckband', which indicated a circular interwoven object. There is no reason to associate these words with a ceramic vessel in Gaulish and the word is not associated with vessels of any type in Irish.

Gaulish *-biion* is taken to mean 'goblet' (others might prefer to derive it from **biwo-* 'living?') and occurs in a number of compounds, e.g. *uidu-bion* 'wooden-goblet', *ono-biia* 'coupe-soif'. Delamarre (2003, 242) suggests the possibility that Old Irish *uibne* (also *oibne*) 'small drinking vessel' is related (the Irish form having been metathesised). But this seems very unlikely and the traditional etymology suggested by Stokes (*DIL* O-116) is accepted in the *LEIA*-O-16 ('sans doute emprunté') from Latin *obba* 'beaker, noggin, decanter' and the word is absent from Matasović's newly published *Etymological dictionary of Proto-Celtic* (2009).

Gaulish *cilurno* 'bucket'. This word is actually British, where it appears earliest as a toponymic term *Celurnum* and is attested in both Brittonic languages, e.g. Old Welsh *cilurnn*, Modern Welsh *celwrn* 'pail, pitcher, vessel, bucket, tub', Old Breton *chilorn*, Middle Breton *quelorn*, Modern Breton *kelorn* 'pot' and Old Irish *cilornn* 'pitcher, vessel'. These forms have been presumed to derive from a Proto-Celtic **kelurno-* 'pot', which has been derived from a PIE **kelp-* 'jug, pot' under the assumption that it is cognate with Latin *calpar* 'wine-pitcher' and Greek *kálpē* 'a ceramic vessel for drawing water'. This is far from certain in that the Latin word may well be a borrowing; according to Eric Hamp, the word is 'surely not of Indo-European date' (Hamp 1974, 198), and Matasović (2009, 199) treats it as a 'Wanderwort of unknown origin'.

Whatever its ultimate origin, its antiquity is sufficiently assured within Celtic to suggest that it existed during the Irish Iron Age. As to its appearance and function in our earliest literary records we can say very little. It glosses Latin *situla* 'bucket' (DIL-C186) and in Sg 49a1a it glosses Latin *urceus* 'pitcher, water-pot, ewer', but it could also hold an alcoholic beverage, e.g. *chilórnd cormma* 'pitcher of ale' (Trip.² 1386). In terms of material of manufacture, we have only two references: one that places it in association with several vessels of *uma* 'copper/bronze' (DIL-C 186) and another where the *cilorn* is one of a series of yew vessels (Best 1910, §10). In the latter case, a recitation by the long-lived Fintan of the objects he fashioned from a yew tree, he lists seven vessels in diminishing order of size with the *cilorn* in fifth place.

Gaulish *pario-* 'cauldron' via a Gallo-Latin **parium* or **pariolum* has been preserved in a number of Romance languages, e.g. Catalan *perol*, Italian *paiolo*, Provençal *par*, all 'cauldron'. Insular Celtic cognates include Welsh *pair* 'cauldron, large pot, boiler; melting-pot, ?furnace; also fig., esp. of place of tribulation or punishment', Old Cornish *per* gl. *lebes* 'kettle', Breton *per* 'cauldron', along with Old Irish *coire* 'cauldron' (and Scots Gaelic *coire* 'kettle'). The Celtic words find cognates in other Indo-European languages, e.g. Germanic (Old Norse *hverr* 'cauldron', Old English *hwer* 'pot, bowl, kettle, cauldron', Old High German (*h*)*wer* 'cauldron'), Indic (Sanskrit *carú-* 'cauldron' [of clay or metal]), Tocharian (Toch B *kwäriye* 'clay pot') and ?Hittite *kuraya-* 'large open vessel'. Given the time of the proto-language, the antecedent meaning was probably a large vessel of clay that became attached to specifically large metal vessels in western Europe in both Germanic and Celtic. If there were a late Bronze Age or Iron Age native word for the cauldron, this is easily the most likely candidate.

Gaulish *souxtu* 'creuset'. This has been compared with Middle Irish *suacht* 'vat' (Modern Irish *suacán* 'creuset, pot, earthen furnace'), which occurs in the 'Betha Iuliana' (Vendryes 1912). Here it is described as a vessel in which there is molten lead, and Vendryes (1912, 321, n. 4) merely defines it as 'une espèce de récipient'. Roibeard Ó Maolalaigh (2005) has taken this comparison considerably farther to demonstrate that the Modern Irish form is actually derived from Scots Gaelic, where it may serve to designate a clay cooking vessel as well as an earthen furnace.

To these might be added Gaulish *panna* 'some sort of vessel', which occurs commonly on graffiti from La Graufesenque. Although some have argued that it finds cognates in both OIr *cann* 'can, vessel' and Welsh *pann*

'drinking cup' (and hence Proto-Celtic **kwannā*), LEIA-C-33 regards it as far more likely that both the Irish and Welsh words are borrowings from late Latin *panna* and this comparison is also absent from Matasović (2009).

And, finally, from Celt-Iberian on the Botorrita inscription (K.1.3) we have the form *lesteraia*, which appears to be either the plural or a suffixed form of **lestrom*, which is to be compared with Old Welsh *lestir*, *-lestr* 'pot, vessel, etc.' and other Brittonic forms; this word will be treated below as it is commonly accepted to be a loanword in Irish.

Although Continental Celtic provides but a small number of comparanda for our study, there are also a few other words whose etymological derivation suggests deep antiquity irrespective of their lack of attestation in Gaulish.

Old Irish *án* 'drinking-pot' has been derived from a Proto-Celtic **fatnā-* (or **fānā-*?; Matasović (2009, 126) **fatnā-*). An IE origin (PIE **póth_{ar}* 'shallow dish') has been sought in comparisons with Greek *patánē* 'bowl, flat dish' (borrowed into Latin *patina* 'broad, shallow dish, plate') and Hittite *pattar* 'dish; vessel made of osiers or wood used for holding dry material but not liquids'. In Hittite this is an old word (heteroclitic) and seems to refer to a basket of some sort rather than a clay vessel. The Irish word, as a designation of a drinking vessel, is a bit removed from both the earlier Greek and Hittite attestations of a 'flat dish' or 'basket', and the LEIA-A72 prefers a derivation from **pō-nā* (cf. Sanskrit *pā-na-m* 'drink'), which is derived from the verbal root **peh₃(i)-* 'drink'.

Middle Irish *coim* 'vessel, container' is treated in the DIL (C-298) merely as an extended use of a word meaning 'body, breast, bosom, waist', but an inherited meaning pertaining to vessels may still be secure given that it occurs in context with *stuagach* 'pitcher' and *folderb* 'pail, vessel': *cóm airgit gil* (LB233b22)—a breast or pot. The distribution of this word is slightly problematic in that it is otherwise confined to Greek *kúmbhē* 'drinking cup, bowl' and Indo-Iranian (Avestan *xumba-* 'pot', Sanskrit *kumbhá-* 'pot') and the word has been treated as another non-Indo-European Wanderword. The Old Indic *kumbhá-* was a jug for holding water, honey or other liquids. The PIE word is reconstructed as **kumboleh_a-* 'bowl, small vessel', whose root derivation is sometimes taken from **keu-* 'bend', but this reconstruction is not very secure and the antiquity of this word within Celtic itself, at least as a word for a 'container' (as opposed to a meaning 'valley', cf. Matasović 2009, 229), is problematic.

These are augmented by a series of words (Appendix 4) that relate to containers of some sort in Irish but whose

etymological background suggests that they may be late native Irish creations rather than words of deeper antiquity that help fill out the semantic field of 'container'. In general, they describe vessels in terms of material of manufacture. For example, vessels of wood are covered by **deru-* 'oak' > *derb* 2 'pail, vessel for liquids' and *derba* 2 'pail', and the related *derbín(e)* (*derb* 2) 'small pail' and *derbóc* 'small pail'; **druko-* 'of wood' > *drochta* 'tub, vessel (pot)', and *iubar* 'yew' > *ibar* 'vat, vessel made of yew', *ibrach* (*ibar*) 'vessel of yew-wood, wooden vessel'. Content or function is also another governing principle of word formation, e.g., *fíal* 'piss' > *fíalán* 'piss-pot', or *ól* 'drink' > *olcha* 'vessel of some kind'. Form is also an important criterion, e.g. *drom* 'back' > *cindruim* 'wash-tub', *corr* 1 'conical' > *corróc* 'container (?)'.

Finally, we must refer to the fairly extensive series of names that currently lack etymologies (Appendix 5) that may conceal evidence of greater antiquity.

Although there are possible words for containers of some antiquity, there is little certainty that the Irish Iron Age vocabulary would have possessed linguistic ancestors for more than the *cilornn* 'pitcher, vessel', *coire* 'cauldron', and *suacht* 'vat'. Many of the other words may have existed in some ancestral form of Irish during the Iron Age, e.g. words describing vessels as of oak, yew or containers for drinking, but this cannot be stated for certain.

Souterrain ware

If we wish to search for a word that might indicate souterrain ware, our criteria should include at least some of the following diagnostic markers: a vessel described as made of clay, flat-bottomed, utilised in cooking, and, possibly, involving a late loanword from British, Latin or, perhaps, even early English.

Most of the thirteen English loans credited to early Irish (Appendix 1) provide little more than a list of exclusions where we can presume that they do not refer to prehistoric or early historic vessels. But one of the words, *croccán*, is of some interest because it might be considered as a possible candidate for the designation of souterrain ware. The *croccán* is described as an earthenware pot in Irish (generally qualified with *créda* 'clayey, earthen', *DIL* C-540). It glosses Lat *olla* 'pot, jug' in IrGl 56 (Stokes 1860) and is the source of NIr *croca* - *crocán* - *crogan* 'jar, pitcher', suggesting liquid storage or dispensing. It also occurs in the *Betha Brénainn Clúana Ferta* but in a peculiar context of discourse by Judas

Iscariot, who says: 'I am smelted like lead in an earthen pot (*leghtar mé amhail luaidhe hi croccán chriadh*)' (Plummer 1922, vol. 1, 86, §102). Its source, the Old English *crocc*, is an earthenware vessel, cf. *croccwier* 'earthen pot', *crocsceard* 'pot sherd', *crocwyrhta* 'potter', and is one of the few designations in early Irish for an earthenware vessel of any sort. But without reference to the *croccán* in a native context it is difficult to ascribe this term to souterrain ware. Moreover, souterrain ware generally gives the appearance, both with respect to shape and the presence of burnt residues, of having been used more often as a cooking vessel or perhaps for dry storage (Edwards 1990, 73–5), which is difficult to reconcile with the *croccán*'s later association with a 'pitcher'. The one mitigating fact is that the Latin *olla*, which it glosses, could also serve for the boiling of foodstuffs and, like souterrain ware, could be blackened by fire (*vultus redigentur in ollam*; Joel 2, 6). But it is perhaps far more likely that *croccán* entered Irish in connection with contacts with middle-Saxon trade in, for example, Ipswich Ware (Fig. 1c), which flourished in the period 720–850 and produced 'the only English-made pitchers of the middle-Saxon period' (Blinkhorn 1999, 5). The later association of the word exclusively with a pitcher rather than a cooking vessel suggests that, although Ipswich Ware comprised small cooking pots as their basic form (Hurst 1976, 300), in Irish the designata was primarily or exclusively associated with pitcher-shaped vessels. It might be noted that Welsh *crochan* 'ceramic pot, metal cauldron' has been presented as a loan from Irish *croccán* in the GPC, which would suggest a date before British *c(c)* became *ch* in the sixth or seventh century, which, at least for the Welsh etymology, complicates matters even further.

A second candidate would be *airnise* 'vessels, utensils'. Although the word is often associated with the implements of the smith (see *DIL* A-233–234), it also occurs modified by *criadh* 'clay', e.g. *aurnaisi criadh* 'earthen vessels'. As this word, however, can hardly be separated from *airnéis* 'livestock' > 'possessions', this suggests that it reflects merely a semantic shift that in no way originally comprised the concept of 'container'.

A third potential candidate would be the sole British loanword, *lestar* 'pot', whose source can be seen in Old Welsh *lestir*, *-lestr*, Modern Welsh *llestr* 'vessel (pot, etc.)', bushel, vesselful; the human body (bibl.); ship, boat', Cornish *lester* 'gl. nauis "vessel"', Breton *lestr* 'vessel'. Although the word may be projected back into Proto-Celtic because of a cognate word in Celt-Iberian, the fact that it is a British loan in Irish

raises the possibility that we are dealing with the borrowing not only of a word but also of the vessel itself and invites the possibility that we are dealing with the introduction of souterrain ware. To this we might add the possibility that souterrain ware may be derived from Cornish grass-marked pottery (Thomas 1986, 76), although this has also been seriously doubted (Edwards 1990, 74; Mytum 1992, 36), or Hebridean pottery (Armit 2008). Unfortunately, the contextual evidence does not provide much support for identifying the *lestar* with souterrain ware. In Irish the basic meaning seems to be a container for liquids and may be generic. In Wb. 4^c32 and Sg65^b6 it glosses Latin *vās*, which is a 'vessel' or 'dish' or implement of any kind, too general to be used for a more refined definition; in Ml. 94^c9 it is associated with Lat *poculum*, which is clearly a drinking vessel, cup or goblet. Particularly unhelpful is Sg. 56^b7, where *lestar* is used to gloss Lat *futilis*; the gloss uses it in the explanation 'the name for a round-bottomed vessel (*lestar chrothón*) which is (used) as offerings to gods'. The Lewis and Short (1896, 798) meaning of *futilis* is given as 'a water-vessel, broad above and pointed below, used at sacrifices to Vesta and Ceres'. As souterrain vessels are distinguished by their straight sides and flat base, the equation of the word with a pointed- or round-based pot would seem to exclude souterrain ware. Also, the Irish *lestar* does not seem to be qualified with *criadh* 'earthenware' but is rather described as made of other materials, e.g. *fid lestra* 'wooden-lestars', *umi* 'copper', *tarn* 'iron' and *argitt* 'silver' (exx in DIL C-120). It is also a vessel for washing in. It can also be expensive in the sense that we have *lestar lulaice* etc. 'lestar worth a milch cow', a value rather extraordinarily high if one considers that souterrain ware was one of Ireland's rather grottier examples of material culture. The association with liquids, dispensing, round- or pointed-based vessels and the absence of any reference to clay manufacture suggests that, whatever the *lestar* was, it was not likely to be the specific designation of souterrain ware. Matasović (2009, 238) has suggested that the Proto-Celtic **lestro-* 'vessel' may derive from PIE **plek-stro-* 'wickerwork'.

A fourth potential designation involves Early Irish *aigen* I 'cooking vessel, pan', which at least correlates in function with souterrain ware. It has been suggested that the Irish word was a Greek loan and it has been connected with Grk *ággoslaggeion* (though this origin is regarded as improbable in LEIA-A-28). The semantics are not impressive, as in Homer the Greek word can mean a 'vessel for milk or wine' and later 'vase, pail', which might be assigned to a wine-container but

hardly fits with the function of the Irish vessel. The Irish *aigen* means 'cooking vessel, pan' and in Sg 92^b3 is glossed with *patena* and *patella*, i.e. 'a small pan, little dish, platter' for cooking or serving food, while elsewhere it translates Latin *sartago* 'frying-pan, baking-pan'. The DIL furnishes other examples clearly indicating its function in the preparation of cooked food, e.g. pottage, meat, and thus it remains a potential candidate, although its description as a shallow pan-shaped object does not really provide strong support for identifying it with souterrain ware.

A fifth candidate could be Early Irish *suacht*, one of the few Irish words with a Gaulish cognate. As we have seen above, the Gaulish and Early Irish reflexes of this word seem to be limited to a vessel associated with metallurgy, which would at least suggest a clay vessel. The evidence of Scots Gaelic *suachdan*, however, clearly encompasses its use as a cooking vessel, and Ó Maolalaigh (2005, 113–14) calls attention to the fact that handmade ceramics were made continuously in the Hebrides from the Neolithic down to modern times, i.e. parts of Scotland preserved the tradition of making clay vessels through the Iron Age. If we needed a word to designate native handmade vessels in Scotland, it would provide a very attractive solution. The problem lies with linking *suacht* to Irish souterrain ware when we so far have not found any evidence of its use in early Irish texts in relation to clay cooking and serving vessels and also have to confront the fact that the word survived in Scotland rather than Ireland.

Finally, we may note the existence of an Early Irish *sliech* 'sherds, fragments', which would at least be an appropriate designation of how we invariably find the remains of souterrain ware. But this bears no relationship to the designation of the vessel itself (unless the early Irish shared the same gallows humour as modern archaeologists who have attempted to restore the profiles of souterrain ware) as the word clearly derives from *slice* 'shell' and is not specifically derived from a word indicating an earthenware vessel.

In addition to souterrain ware, we must also deal with the presence of about 50 sites in Ireland that have produced E-ware, a ceramic kitchenware comprising jars and pitchers (ostensibly for serving liquids, possibly imported wine), bowls (for consuming foodstuffs and drink) and possibly cooking pots, although such vessels may have only been employed in that function after their original contents had been removed and they found some secondary function, associated either with cooking or industry (Campbell 2007, 48–52; Fig. 1d). In light of this, some of the stranger

contexts cited in literature, e.g. the *croccán* cited above as a receptacle for molten lead, do not appear so strange.

In short, although we can list some of the terms that might have a claim on our attention as potential designations of souterrain ware, the Irish word (or words) for this material still remains stubbornly elusive.

Composition and function

During the Iron Age and the early medieval period Irish containers were generally made of wood, metal or (inferentially) skins. Raftery argues that during the Iron Age the absence of ceramic containers was not a 'major handicap' and that the containers of wood or metal should have fulfilled all the functions of ceramic containers except, perhaps, for boiling water, which may have been accomplished either in metal containers or by placing heated stones in leather containers (Raftery 1995, 153). This raises three questions. What evidence do we have from the early literary sources as to the range of materials used in the manufacture of containers? What evidence do we have for the function of the containers? Does the literary evidence suggest a precise nomenclature for containers? All of these questions are beyond the scope of this paper, but at least some preliminary thoughts can be presented in the hope that someone of greater competence (or, again, a desperate student looking for a Ph.D topic) will take the following observations much further.

In a number of instances, literary texts provide information concerning the material composition of a container. A summary list is presented in Table 1.

A few general observations can be drawn from this list. The first is the relatively high frequency of vessels described as wooden, and here we do not even include all of the names of vessels whose etymology derives from tree names. In terms of composition, only two types of wood are listed: yew and oak, the latter for the *dabach*, a large tub for which split oak staves may have served. What is interesting here is that where we find wooden vessels from Iron Age contexts, although oak has been found, containers tend to be more often of ash, alder, poplar and willow (Raftery 1994, 116; 1995, 154); so far vessels of yew, favoured in the early medieval period as a wood for the manufacture of 'noble' objects (Kelly 1976), have not been recovered, although a yew handle was found with the wooden (poplar) cauldron from Altartate, Co. Monaghan (Raftery 1984, 227).

If we were to attempt to assign names to some of the Iron Age vessels, we could begin with a number of wooden cauldrons (Earwood 1993, 46–9). In some instances, such as the cauldron from Altartate (Fig. 1e), they appear as wooden skeuomorphs of metal cauldrons, complete with ornament and elaborate handles. The term *coire* would certainly be applicable to the five bronze examples and one iron-sheeted example (Raftery 1984, 226–36), but it is noteworthy that the Irish literary evidence strongly favours bronze cauldrons and does not specifically mention wooden cauldrons. It is entirely possible that a wooden cauldron bore the same name as a metal cauldron but there are other possibilities. As the *drolmach* would appear to be a compound of *drol* 'ring' or **drulo-* 'oaken', this has suggested that we could be dealing with a wooden vessel with rings or handles attached at the sides. Already in the late Bronze Age we have evidence from Altanagh, Co. Tyrone, of wooden tubs with three or more handles (Fig 1f; Earwood 1993, 56–7). In terms of size, the *drolmach* is apparently a very large vessel, set only after the *dabach* 'vat, tub' in Fintan's woodshop project. Alternatively, there is also the *dronglach*, which is used contextually along with *drolmach*. As for the *dabach* itself, there are late Bronze Age tubs from Ireland (Earwood 1993, 54–60) and these could hold up to 36 gallons.

Second, the largest single class of material composition is silver, which—and I have belaboured the point incessantly (Mallory 1986; 1992)—is a fairly clear indication that the objects being described do not derive from the Irish Iron Age. On the other hand, we have at least eight words for gold containers to choose from in naming the gold bowl from the Brighter hoard.

Finally, the few references to clay vessels have been discussed above.

As for function, Table 2 provides a preliminary list of the association between containers and liquid contents.

The list has often been compiled on the basis of a single citation and could surely be expanded through additional research but there are a few possible patterns. For example, other than the *derb* which may be employed for alcoholic beverages, those items designated as 'dairy' (*buigén*, *coidiu*, *etrud*, *mórnán*) tend to have been exclusively used for dairy products. It is interesting to note that both the *buigén* and probably the *coidiu* are regarded as Latin loans; the only probable 'inherited' word was the *mórnán*, despite the fact that one might have regarded the dairy industry as native.

In the case of alcoholic beverages, wine-serving is confined to the *cuach*, *escop* and *escra*; the *dabach* is a large

Table 1—Material composition of Irish containers.

Vessel	Wood	Bronze	Silver	Gold	Iron	Glass	Clay
<i>aibinn</i>			X			X	
<i>airdech</i>				X			
<i>airnise</i>							X
<i>án</i>	X	X	X				
<i>ardán</i>	X						
<i>bleide</i>			X				
<i>cilorn</i>	X	X					
<i>cochmae</i>				X			
<i>coim</i>			X				
<i>coire</i>		X					
<i>coppán</i>		X	X				
<i>corn</i>			X				
<i>croccán</i>							X
<i>cuach</i>	X	X	<i>findruine</i>	X			
<i>dabach</i>	X	X	X			X	
<i>drolmach</i>	X			X?			
<i>dronglach</i>	X						
<i>ebrón</i>		X			X		
<i>escar</i>			X	X			
<i>escra</i>		X	X	X			
<i>fethal</i>			X				
<i>fidlann</i>	X						
<i>ían</i>	X						
<i>irligib</i>			X	X			
<i>lann</i>		X					
<i>lestar</i>	X	X	X		X		
<i>long</i>			X				
<i>mías</i>			X				
<i>milan</i>		X					
<i>mullóc</i>		X					
<i>slicrech</i>						X	X
<i>soithech</i>				X		X	
<i>teilléen</i>		X					

vat and the *muinir* and *pait(t)* are both taken to be leather containers. As both the *cuach* (a Latin loan) and *escra* could also be used for water, there is no suggestion here at least of names specifically associated with the storage or consumption of wine except for the *escop*, borrowed from Latin *scyphus* 'cup, goblet', itself a loan from Greek. It still remains moot whether we can recover special (Latin-derived) terms to label the imported wares associated with the wine trade.

Mead, on the other hand, was surely a local drink but consumed in containers whose names were of Latin

(*airdech*), Anglo-Saxon (*bleide*) or local (*corn*) origin. Further analysis of contexts might indicate whether the vessels used for mead and wine consumption were really different from those from which ale was drunk, i.e. *creithir* (Latin *crater*), *metar* (Latin *metrum*) and *currín* (native). In any event, we do not seem to find a lexical alignment of the containers with their beverages, i.e. native Irish terms exclusively for the consumption of milk, mead and ale, words exclusively of Latin origin related to wine consumption, although a somewhat less transparent alignment of lexical origin and beverage may still obtain.

Table 2—Liquid contents in Irish containers.

Name	Water	Dairy	Ale	Mead	Wine
<i>airdech</i>				X	
<i>bleide</i>				X	
<i>brellán</i>		X			
<i>buigén</i>		X			
<i>coidiu</i>		X			
<i>corn</i>				X	
<i>cuach</i>	X			X	X
<i>currín</i>			X		
<i>dabach</i>	X		X	X	X
<i>derb</i>		X	X		
<i>drolmach</i>	X				
<i>dronglac</i>	X				
<i>escand</i>	X				
<i>escop</i>					X
<i>escra</i>	X				X
<i>etrud</i>		X			
<i>findchoire</i>	X				
<i>iaene</i>	X				
<i>idre</i>	X				
<i>lestar</i>	X			X	
<i>long</i>	X				
<i>lothar</i>	X				
<i>metar</i>		X			
<i>mórnán</i>	X	X			
<i>muinir</i>					X
<i>mul</i>	X				
<i>ommar</i>	X				
<i>pait(t)</i>				X	X

Conclusions

Any conclusions drawn from these observations must be both limited and tentative.

In general, there is a strong tendency for various containers to be described as wooden, although there are also an appreciable number described as being made of copper/bronze or silver. It is always difficult to ascertain whether descriptions of objects in metal reflect reality or merely literary hyperbole. If we wish to project elements of the Irish vocabulary back into the Iron Age, the most likely names would be the following: Old Irish *coire* 'cauldron', which is routinely described as metal in literature although it may have had both a metal and a wooden referent in the Iron Age; Old Irish *cilorn* 'pitcher, vessel', which is perhaps

semantically vague enough to refer to any number of smaller wooden containers; possibly the Middle Irish *suacht*, which shares a Gaulish cognate: that it is capable of holding molten metal certainly suggests that it may have referred to a clay vessel and it is explicitly made of clay in our earliest Scottish sources, i.e. 1659, when it appears as a *suacan cre* 'earthen *suacan*' in the Synod of Argyll's Metrical Psalms (Ó Maolalaigh 2005, 104). The Iron Age vocabulary may also have been extended by a series of native Irish words associated with the manufacture of wooden vessels (oak, yew) or possibly just their function (e.g. Old Irish *án* 'drinking-pot', sufficiently vague to refer to a wooden drinking vessel) or physical description.

The lexical evidence (so far) suggests that references to containers explicitly made from clay are limited to perhaps two words (*croccán*, *airnisce*), and, by context, perhaps the *suacht*, although further research may be able to extend this. Other than *suacht*, these words have lexical histories or contexts that make them very poor candidates for assigning them to the Iron Age. In short, there really is no linguistic case for challenging the archaeological evidence that clay vessels were not made during the Irish Iron Age or, indeed, more recently.

As for souterrain ware, there is no obvious firm lexical candidate for this native earthenware. Of the various candidates suggested, the *croccán* could well have been associated with pitchers or jars of middle-Saxon date that were exchanged within England and with which Irish writers had come into contact (they are often found on ecclesiastical sites; Blinkhorn 1999, 8) but it makes a poor fit with souterrain ware within Ireland. The *suacht*, ironically, may have been associated with the type of industrial activities (holding molten lead) that we associate with some of the E-ware vessels of the early medieval period (Campbell 2007, 49–50), although its possible association with Gaulish suggests an earlier ancestry. From a functional point of view, the *aigen* 'cooking vessel, pan' probably has most to recommend it (or less to exclude it), although it is far from certain that it was actually our elusive word for souterrain ware.

In terms of the specific designations of early Irish containers and their function (cf. wine [red or white] glass, tea cup, coffee mug), one might propose as a series of hypotheses that a number of vessels did have specific associations with their liquid contents, but it will require a much more exhaustive review of the literary evidence to substantiate the patterns suggested in this article.

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References

- Armit, I. 2008 Irish–Scottish connections in the first millennium AD: an evaluation of the links between souterrain ware and Hebridean ceramics. *Proceedings of the Royal Irish Academy* 108C, 1–18.
- Best, R.I. 1910 The settling of the manor of Tara. *Ériu* 4, 121–72.
- Blinkhorn, P. 1999 Of cabbages and kings: production, trade, and consumption in middle-Saxon England. In M. Anderson (ed.), *Anglo-Saxon trading centres*, 4–23. Glasgow. Cruithne Press.
- Campbell, E. 2007 *Continental and Mediterranean imports to Atlantic Britain and Ireland, AD 400–800*. CBA Research Report 157. York. Council for British Archaeology.
- Cunliffe, B. 2005 *Iron Age communities in Britain* (4th edn). London and New York. Routledge.
- Delamarre, X. 2003 *Dictionnaire de la langue gauloise*. Paris. Editions Errance.
- DIL 1913–76 *Dictionary of the Irish Language*. Dublin. Royal Irish Academy.
- Earwood, C. 1993 *Domestic wooden artefacts in Britain and Ireland from Neolithic to Viking times*. University of Exeter Press.
- Edwards, N. 1990 *The archaeology of early medieval Ireland*. London. Batsford.
- Hamp, E.P. 1974 On some sources of primitive Breton L. *Études Celtique* 14, 195–9.
- Hurst, J. 1976 The pottery. In D. Wilson (ed.), *The archaeology of Anglo-Saxon England*, 283–348. Cambridge University Press.
- Kelly, F. 1976 The Old Irish tree-list. *Celtica* 11, 107–24.
- LEIA 1959–96 *Lexique Étymologique de l'Irlandais Ancien*. Paris. DIAS/CNRS.
- Lewis, C.T. and Short, C. 1896 *A Latin dictionary*. Oxford. Clarendon Press.
- Mallory, J.P. 1986 Silver in the Ulster Cycle of tales. In D. Ellis Evans, J. G. Griffith and E. M. Jope (eds), *Proceedings of the Seventh International Congress of Celtic Studies, Oxford*, 31–78. Oxford. D. Ellis Evans.
- Mallory, J.P. 1992 The world of Cú Chulainn: the archaeology of *Táin Bó Cúailnge*. In J. P. Mallory (ed.), *Aspects of the Táin*, 103–59. Belfast. December Publications.
- Matasović, R. 2009 *Etymological dictionary of Proto-Celtic*. Leiden. Brill.
- Mytum, H. 1992 *The origins of Early Christian Ireland*. London and New York. Routledge.
- Ó Maolalaigh, R. 2005 A Gaulish–Gaelic correspondence: *S(o)uxt-* and *Suac(hd)an*. *Ériu* 55, 103–17.
- Plummer, C. 1922 *Bethada Náem n'Érenn*. Oxford. Clarendon Press.
- Raftery, B. 1984 *La Tène in Ireland*. Veröffentlichung des Vögeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1994 *Pagan Celtic Ireland*. London. Thames and Hudson.
- Raftery, B. 1995 The conundrum of Irish Iron Age pottery. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age: essays on fieldwork and museum research presented to Ian Mathieson Stead*, 149–56. Oxford. Oxbow.
- Stokes, W. 1860 *Irish glosses*. Dublin. Irish Archaeological and Celtic Society.
- Thomas, C. 1986 *Celtic Britain*. London. Thames and Hudson.
- Vendryes, J. 1912 Betha Iuiliiana. *Revue Celtique* 33, 311–23.

Appendix 1: English loans

Early Irish	English
<i>báisín</i> 'basin'	Mid Eng <i>ba(s)cin</i> < OFr <i>bacin</i>
<i>bleide</i> 'drinking-cup, goblet'	OE <i>bledu</i>
<i>cailís</i> 'chalice'	AngN <i>calis</i>
<i>croccán</i> 'pot, vessel'	OE <i>crocc</i>
<i>cruibét</i> 'cruet'	Mid Eng <i>cruet</i> NFrnc <i>cruet</i>
<i>crúisce</i> 'cruet, little jug'	Eng <i>cruse</i>
<i>cupa</i> 'cup, goblet'	Mid Eng <i>cuppel</i> /AngN <i>cupe</i>

<i>gasg</i> 'vessel'	= Eng <i>cask</i> ? (< Sp <i>casco</i>)
<i>labar</i> 'basin'	Mid Eng <i>laver</i> < OFren <i>laveoir</i>
<i>pota</i> 'pot'	Mid Eng <i>pot</i> < OE <i>pott</i>
<i>scacatóir</i> 'cup-bearer'	OE <i>scacan</i> or ON <i>skara</i>
<i>scála</i> 'bowl, cup'	Mid Eng < ON <i>skál</i>
? <i>toba</i> 'drinking vessel'	? Eng <i>tub</i>

Appendix 2: Romance loans

Irish	Romance
<i>buidél</i> 'bottle'	NF <i>botel</i>
<i>duisel</i> 'pipe, spout'	Fr <i>douzil</i>
<i>flaigín</i> 'flagon'	Rom [DIL]
<i>pláta</i> 'plate'	Romance [DIL]
<i>bullá</i> 2 'bowl'	Eng or Rom

Appendix 3: Latin loanwords

Irish	Latin
<i>airdech</i> 'cup, vessel'	Lat <i>*arreticus</i> 'from Arezzo where cups were made'
<i>eredech</i>	'drinking-cup, goblet'
<i>ampaill</i> 'flask, pyx'	Lat <i>ampulla</i>
<i>buigén</i> 'a measure or vessel for liquids'	Lat <i>modius</i> (via EI <i>muiden</i>)
<i>cailech</i> 1 'chalice, cup, goblet'	Lat <i>calyx</i>
<i>cailice</i> 'chalice'	Lat <i>calyx</i>
<i>cann</i> 'can, vessel'	Lat <i>canna</i> , Fr <i>canne</i>
<i>cern</i> 2 'dish, receptacle'	Lat <i>cernela</i> , <i>cerniculum</i>
<i>ceirín(e)</i> 'dish, plate'	Lat <i>cernela</i> , <i>cerniculum</i>
<i>cochmae</i> 'vessel'	Lat <i>cucuma</i>
<i>cochmíne</i> 'little vessel'	Lat <i>cucuma</i>
<i>coidiu</i> 'cup'	?Lat <i>catinus</i> or native acc. to Stokes
<i>coppán</i> 'cup, goblet'	Lat <i>cuppa</i>
<i>corn</i> (a) 'horn'	Lat <i>cornu</i>
<i>creithir</i> 'vessel, drinking-cup'	Lat <i>crater</i>
<i>cúa</i> 1 (b) = <i>cuad</i> 'cup, bowl'	? Lat <i>cyathus</i> < Grk <i>kúkthos</i>
<i>cuäch</i> (a) 'bowl, cauldron, etc.'	Lat <i>caucus</i> (?) < Grk <i>káúke</i> or Proto-Celtic?
<i>cúachán</i> 'basin, bowl, etc.'	Lat <i>caucus</i> (?) < Grk <i>káúke</i>
<i>cúachda</i> 'cupped'	Lat <i>caucus</i> (?) < Grk <i>káúke</i>

<i>cuad</i> 'cup, drinking-vessel, mug'	?Lat <i>cyathus</i> < Grk <i>kúkthos</i>
<i>cuipe</i> (a) 'large wine-vessel, var'	?Lat <i>cūpa</i>
<i>tulchube</i> 'wine crater, bowl, etc.'	Lat <i>cūpa</i> and * <i>twel</i> (IEW 1081/1061)
<i>esbicul</i> , <i>escibul</i> 'small cup'	Lat <i>scyphulus</i>
<i>escop</i> 1 'large vessel for wine'	Lat <i>scyphus</i>
<i>idre</i> 'water pot'	Lat <i>hydrīa</i>
<i>in(n)struimint</i> 'vessels'	Lat <i>instrumentum</i>
<i>lann</i> 'griddle, cooking-plate, plate'	Lat <i>lām(i)na</i>
<i>long</i> 'cauldron, container, vessel'	Lat (<i>navis</i>) <i>longa</i>
<i>lothommar</i> 'bath-tub, etc.'	? Lat <i>lōtus</i>
<i>méisíne</i> 'small platter, small dish'	Lat <i>mensa</i>
<i>meisrín</i> 'vessel containing twelve times the full of a hen's egg-shell'	?Lat <i>mensura</i>
<i>mes(s)ar</i> 'vessel used as a measure'	Lat <i>mensura</i>
<i>metar</i> 'methar, wooden vessel'	Lat <i>metrum</i>
<i>mías</i> 'cup with a cover, dish'	Lat <i>mensa</i>
<i>muide</i> 'vessel for holding liquids'	Lat <i>modius</i>
<i>oibne</i> 'small drinking-vessel'	Lat <i>obba</i>
<i>olad</i> (<i>ola</i>) 'vessel for consecrated oil'	Lat <i>oleum</i>
1 <i>uibne</i> 'a small drinking vessel'	Lat <i>obba</i>
? <i>orc</i> 'pitcher?'	Lat <i>urceus</i> ?
<i>putraic</i> 'bottle for containing liquor'	Lat <i>pōtrīx</i>
? <i>saltar</i> 'dish'	?Lat <i>psalterium</i>
1 <i>scabal</i> 'cauldron, large pot'	Med Lat <i>scaphula</i>
<i>síthal</i> 'bucket'	Lat <i>situla</i>
<i>síthilín</i> 'small vessel for drawing water'	Lat <i>situla</i> (poss. mixed with * <i>setlo</i> -)
1 <i>tesc</i> 'consecrated dish, dish, paten'	Lat <i>discus</i>

Appendix 4: Irish words built from native vocabulary

<i>ball</i> 'member' > <i>baillén(e)</i> 'small drinking vessel'
<i>ballán</i> 'vessel'
<i>ballóc</i> 'vessel'
<i>brell</i> 'penis' > <i>brellán</i> (b) 'vessel'
<i>drom</i> 'back' > <i>cindruim</i> 'wash-tub'
<i>cingid</i> 'goes' > <i>cingit</i> 'cup, goblet'

coim 'body, breast' > 'vessel, container'
cum 'vessel' (?)
con-oi 'protect, preserve' > *coimét* (b) 'container'
corr 1 'conical' > *corróc* 'container' (?)
 ? *commain* 'equal wealth, mutual gift' > *cummain* 'small container, basket'
coire 'cauldron' > *currín* 'small pot'
dál 'portion' > *dáilem* 'cup or ladle for distributing drink'
 **deru-* 'oak' > *derb* 2 'pail, vessel for liquids'
 derba 2 'pail'
 derbín(e) 'small pail'
 derbóc 'small pail'
 folderb 'pail, vessel' < *fol* 'ring' + *derb*
delb 'form' > *doilbthid* 'potter'
 **druko-* 'of wood' > *drochta* 'tub, vessel (pot)'
drol 'ring' or **drulo-* 'oaken' > *drolmach* 1 'wooden vessel with rings or handles attached at the sides'
 ? *eisc* 'water' > *esc* 2 'vessel'
 escand 'vessel for baling or dispensing water'
fíal 'urine' > *fíalán* 'chamber-pot' (+ *an*)
gabál 'taking, holding' > *gabáltóir* 'receptacle'
iubar 'yew' > *ibar* 'vat, vessel made of yew'
 ibrach (ibar) 'vessel of yew-wood, wooden vessel'
ól 'drink' > *olcha* 'vessel of some kind'
slice 'shell' > *slicrech* 'bits of broken glass or other ware, potscar, potsherds, sherds'
stúag 'arch, bow, loop' > *stúagach* 'pitcher'

Appendix 5: Words of unknown or uncertain etymology (words in Roman not yet treated in *LEIA*)

bóige 'cauldron, small vessel, cup' (*sans étymologie*)
búaignech 1 'drinking-vessel' (*origine inconnue*)

bruin 'cauldron' (not in *LEIA*)
coimde 1 'vat' (cf. *-cubae*) (*étymologie douteuse*)
 coimdén 'little vat, little vessel'
criöl 'receptacle' (*étymologie inconnue*)
cuib 3 'cup' (not in *LEIA*)
dabach I 'large tub with two handles' (*étymologie incertaine* although there have been guesses)
enag 'washing vessel' (?) (not yet in *LEIA*)
enéne (ian?) 'small vessel' (not yet in *LEIA*)
errbu 'margin or rim of a vessel' (?) (not yet in *LEIA*)
etrud I 'milking-pail' (?) (not yet in *LEIA*)
fodlan 'some kind of vessel or measure' (not yet in *LEIA*)
 3 *gand* 'can (?)', 'vessel' (not yet in *LEIA*)
giusta 'tankard, can' (not yet in *LEIA*)
 2 *gnod* 'cup' (?) (not yet in *LEIA*)
groipín 'vessel' (?) (not yet in *LEIA*)
ian 'wooden vessel' (not yet in *LEIA*)
iaene 'water-tank' ? (not yet in *LEIA*)
lóthar 'trough, tub, vat, vessel for holding liquid' (not yet in *LEIA*)
 ? *mucra* 'vessel, can' (only Marstrander reads it as *muc* 'vessel, can' and as an ON loan; as such it may be a ghost word)
mudán 'drinking-cup'? (not in *LEIA*)
muinir (? *muiner*) 'wine-bottle' ? (not in *LEIA*)
 ? *nemur* 'troughs, vats' (may be a wrong reading for *n-ammor* 'troughs, vats')
oircéil 'trough' (not in *LEIA*)
ommar (ammar) 'large vessel in general, vat, trough, trough for holding water, tub' (not in *LEIA*)
paít(t) 'wash pot' (*origine inconnue* unless borrowed from Germanic; cf. Gothic *paida* 'veste de cuir' < Greek *baítē*)
 2 *sinén* 'bin, scuttle' (not in *LEIA*)
soithech 'container, vessel' (*étymologie inconnue*)
stomacha 'name of certain vessels or containers' (not in *LEIA*)
 1 *tai* 'some kind of vessel for holding liquids' (not in *LEIA*)

A re-evaluation of the find-spot of, and a possible context for, the anthropoid hilted sword from Ballyshannon, Co. Donegal

Elizabeth O'Brien

This paper has been prompted by the writer's observation of Ballyshannon Harbour, its tidal conditions and surrounding landscape, while excavating in the immediate area in 1997/8. What follows are some thoughts about a possible re-evaluation of the find-spot and context of the anthropoid hilted sword recovered from the harbour.

History of the find

A short sword with a bronze anthropoid handle was brought up from the bottom of the harbour at Ballyshannon by fishermen c. 1916. It was obtained from the fishermen by Mr Hugh Allingham MRIA of Ballyshannon, but was later acquired by Mr Andrew Lowry, Argrey, Ballindrait, Co. Donegal. When originally recovered the sword was intact, the blade being described as 'embedded in a mass of sand, shells, etc., cemented together with lime deposit, and about fifteen inches in length' (Anon. 1925). The blade later became detached from the hilt. The anthropoid hilt was subsequently acquired by the National Museum of Ireland from Mr Lowry in 1926, together with the detached encrusted blade. The hilt (Fig. 1) is well known and has been widely published (see below), but the blade has unfortunately been lost or misplaced.

Typology of the Ballyshannon sword hilt

The typology for anthropoid-hilted short swords established by Hawkes (Clarke and Hawkes 1955) includes seven categories or classes, ranging from A to G. Classes A–D are early and middle La Tène (commencing in the fourth century BC), while E–G are middle and late La Tène (third to first centuries BC). The total number of anthropoid swords recorded ranges between 40 (Pleiner 1993, 69), 50 (Clarke and Hawkes 1955, 201) and 60/70 (Fitzpatrick 1996, 376). Distribution maps of the sword type (Clarke and Hawkes 1955, 199; Fitzpatrick 1996, 376) demonstrate that early classes A–D are predominantly located in north-eastern to central Europe, with some outliers in south-

eastern Britain, while classes E–G are located in central Europe and extending to Gaul and eastern and south-western Britain, with one outlier in north-west Ireland (Ballyshannon).

Detailed descriptions of the Ballyshannon hollow cast-bronze anthropoid hilt have been published elsewhere (Mitchell 1977, 65–6, no. 16; Raftery 1983, 89–90, no. 244; Clarke and Hawkes 1955, 227, no. 50; Kelly 1983, 104, no. 29; Wallace and Ó Floinn 2002, no. 4:9). The sword, hilt length 13.4cm, blade 38.1cm (15ins), approximate total length 51.5cm, fits into Hawkes's class G, of La Tène III (nowadays estimated to date to c. 150 BC–AD 50).

While there are similarities with anthropoid swords of the same period from Britain, e.g. the unprovenanced Londesborough Collection sword (from Yorkshire?) and possibly a sword from North Grimston, North Yorkshire, recovered from an extended inhumation burial accompanied by other grave-goods (Clarke and Hawkes 1955, 214, nos 6 and 7, 226, no. 44, 227, no. 49; Stead 2006, 71–2, 271, no. 216), the closest parallel for the Ballyshannon sword hilt, based on typology and chronology, is one recovered from a rich La Tène grave at Châtillon-sur-Indre, on the bank of the River Indre in the Loire Valley, France. (This sword is now lost, but for illustration of hilt see Clarke and Hawkes 1955, 214, no. 2.) Another possible French parallel is a hilt from Tesson, dépt. Charente-Maritime, on the northern side of the Gironde in south-west France (Clarke and Hawkes 1955, 212, fig. 5, no. 4, 225, no. 36). This raises the question of the origin of the Ballyshannon sword. Is it of native manufacture or is it an import, and, if so, from where? The fact that it is an object unique in Ireland makes it unlikely that it is of native manufacture. The general consensus appears to be that this sword demonstrates links with the European mainland, specifically western Gaul (*ibid.*, 215; Raftery 1984, 70, 327; 1994, 225).

Relevance of the find-spot

It has been noted that many of these short swords have been

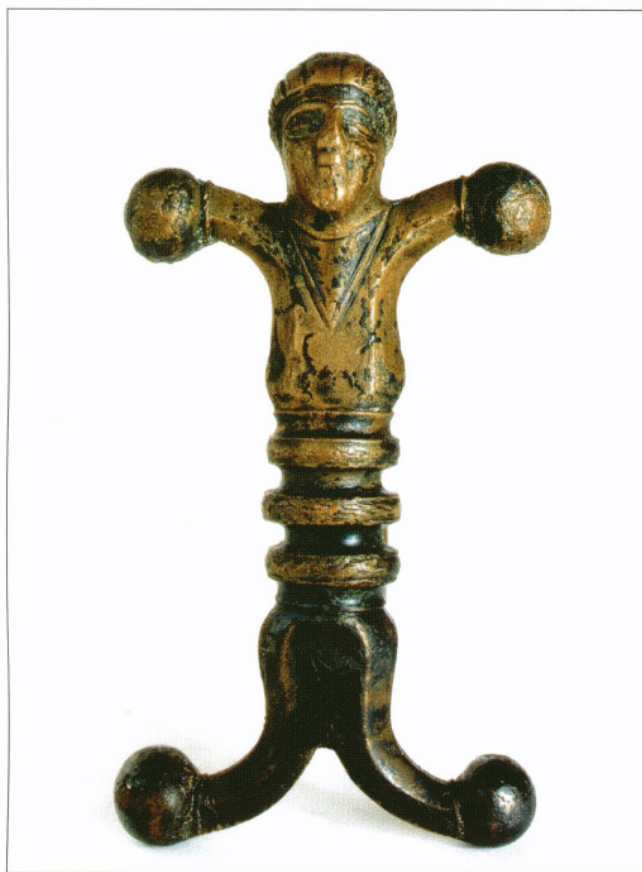


Fig. 1—The Ballyshannon sword hilt (© National Museum of Ireland).

found in contexts in which they were deliberately deposited, such as burials or watery contexts (Fitzpatrick 1996, 376), and that only a small number of the total number of anthropoid-hilted swords known can be assigned to grave assemblages (Pleiner 1993, 49). Fitzpatrick (1984, 179), when discussing La Tène metalwork in watery contexts in southern England, makes a pertinent point—which could well be ascribed to Ballyshannon, where the sword was brought up in a fishing net—when he refers to finds recovered by dredging: ‘. . . in these finds there will probably be a bias towards larger or complete objects, and probably also a selective retention, with fragments of bone, glass or pottery being less likely to be picked out. Objects of organic materials or food are very unlikely to be recognised . . .’.

The find-spot for the Ballyshannon sword has variously been described as being ‘off the coast of Donegal’ (Mitchell 1977, 55), ‘Ballyshannon Bay (or Harbour), from bed of sea in, off County Donegal’ (Clarke and Hawkes 1955, 227), ‘raised from the sea in a fisherman’s net at Ballyshannon Bay,

Co. Donegal’ (Raftery 1994, 143), ‘found in the sea off Co. Donegal’ (Stead 2006, 72), and ‘brought up from the bottom of the harbour at Ballyshannon by fishermen’ (Anon. 1925, 137).

The find-spot is obviously the one outlined in the original record of 1925, i.e. in the harbour at Ballyshannon, which is also the estuary of the River Erne (Fig. 2). It is necessary at this point to describe this unusual harbour/estuary. Entrance from Donegal Bay to the harbour/river estuary can only be gained at low tide because the entrance, which is through a narrow gap between the north rock and the south rock which form the terminals of sandbanks and rock ridges, becomes completely submerged at high tide and poses a dangerous hazard, making entry to, or exit from, the harbour/estuary almost impossible, as many uninitiated or unwary mariners have found to their cost. The river channel is navigable only at low tide owing to the presence of further sandbanks within the estuary, through which the river channel changes its course from time to time. Once entry had been gained into the harbour/estuary, it would not have been possible to continue the journey inland by means of the River Erne because the eastern part of the river estuary was blocked by the famous and spectacular Falls of Assaroe (*Es Ruadh*) (Figs 2 and 3). The Assaroe Falls, which unfortunately were demolished in 1948–52 during the installation of the Erne hydro-electric scheme, have been described as being 500ft wide and up to 20ft high in places, and would have presented a formidable obstacle.

Sailors who succeeded in navigating through the estuary entrance and gained safe access to the river channel would have found themselves in a visually beautiful harbour, renowned for its abundance of fish, especially salmon, and safe from the turbulent Atlantic ocean. They would also have found themselves in a place which from ancient times was regarded as a mythical/sacred place and an important territorial boundary.

Early sources maintain that the legendary Partholon, who reputedly came from Greece, sailed into *Inber mBuada* (the estuary or river-mouth of Buada, the R. Erne) and landed on *Inis Saimer* (the island of Saimer), a small island just below the waterfall, where he settled (Stokes 1895, 141).

The earliest manifestation of the harbour, which underlines the importance of the place, is its possible inclusion among the fifteen river-mouths described in Ptolemy’s map of Ireland compiled c. AD 150, undoubtedly based on knowledge passed on by mariners. The site at Ballyshannon ‘. . . is named Iernou, which may be the

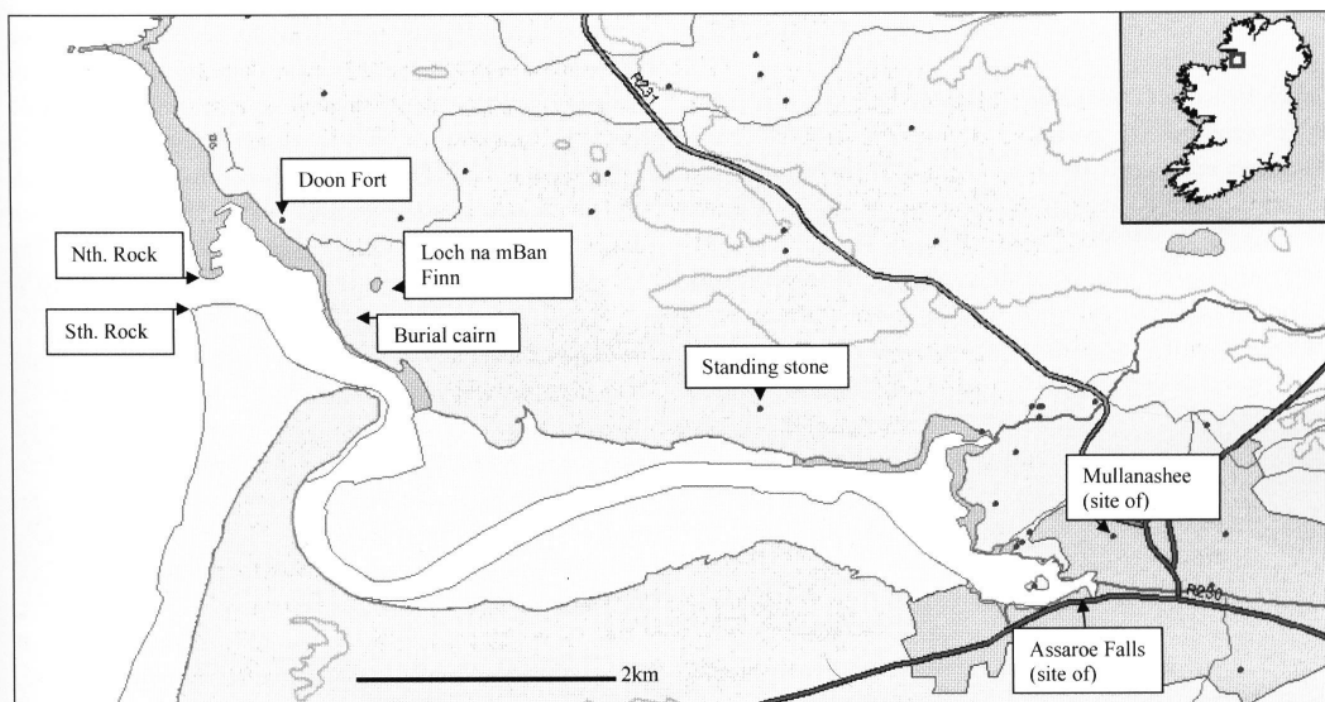


Fig. 2—Map of Ballyshannon Harbour (© Discovery Programme and E. O'Brien).

mouth of the river Erne, also called the Samhair, and known at the cataract at Ballyshannon as *Eas Ruaidh* . . . ' (Toner 2000, 77).

The attribute *Ruadh* appears in the early genealogies, and in particular in association with Áed Ruad mac Badiurn (Red Hugh the son of Badiurn (Buad)) of the Ulaid. Áed is listed in the Rawl. B. 502 list of legendary *Rí Érenn* (Kings of Erin) with the appendage *co torchair i nEss Ruaid* (he fell in Ess Rúad) (M. O'Brien 1976, 118, 135 b 2, 3). The falls were reputedly named *Ess Ruaidh* or *Ess Aodh Ruaidh* from the fact that Áed (or Aodh) was drowned there while gazing at his image when swimming the waterfall. From him *Eas Ruaidh* is named. His fairy mound, *Síodh Aodha*, is on the waterfall's bank (Stokes, 1895, 32; Mac Giolla Easpaig 1995, 158). At least two further versions of the naming of the waterfall are contained in the *Dindsenchas* but these also refer to drowning. Áed is reputed to have been the father of the legendary Macha, and is further listed as being a descendant of Ír, one of the supposed sons of Míl (M. O'Brien 1976, 118, 135 b 26; 271, 156 a 52; 275, 156 b 49).

Saimer may have been an earlier name for the River Erne, and the small island located just below the site of *Ess Ruaidh* is still at the present time known as *Inis Saimer*. It is also possible that the estuary was known as *Cuan Samhaeire*

(the harbour of Saimer) (Hogan 1910, 469). It has already been noted above that the estuary was known at some period as *Inber Buada*, named after Áed's father, and a further variation on the name is that *Inber Buada* was at some time also referred to as *Inber cairnd glais at Inis Saimer* (*ibid.*, 457), i.e. the inlet of the grey/green (Byrne 1966, 95) cairn at Inis Saimer. A literary reference to the area is contained in Tírechán's seventh-century Life of Patrick, when he describes Patrick entering the district of Mag Sereth *trans amnem inter Es Ruaid et mare* (crossing the river between Assaroe and the sea) (Bieler 1979, 160–1). While it has now been convincingly observed that the river being crossed by Patrick was not in fact the Erne but a smaller river on its northern bank (Lacey 2006, 62–3), the reference does confirm that in the early historic period the falls were known as *Es Ruaid*.

The area around Ballyshannon Harbour can best be described as a landscape that combines mythical and archaeological elements. Not only are there the legendary tales about Áed Ruadh and his father Buad, and the variations on the name of the estuary, but there is also potentially associated material evidence, especially on the northern shore of the estuary.

The estuary of the Erne forms the southern boundary of the ancient territory known as *Tír Aodha* (the land of Hugh),



Fig. 3—Assaroe Falls (Lacey 2006, fig. 23).

the modern barony of Tir Hugh. According to tradition, the personage after whom the territory is named was Aodh Ruadh mac Badhuirn (Mac Giolla Easpaig 1995, 158). *Síodh Aodha*, the fairy mound or reputed burial place of Áed Ruadh, is the monument now referred to as Mullashee (or Mullanashee). This unfortunately no longer exists, but it was a double-banked subcircular ringfort situated on a high knoll overlooking the River Erne at Townparks, Ballyshannon (Lacy 1983, 216, no. 1395). The site is now occupied by St Ann's Church, Ballyshannon (Fig. 2).

One of the variations on the name of the harbour, mentioned above, is 'the inlet of the grey/green cairn', and this may refer to the multiperiod burial cairn on the northern bank of the estuary that was excavated in 1997/8 by this writer (Fig. 2; O'Brien 1998; 1999b; 2000). Before excavation this appeared to be a large, grass-covered sand-dune, but excavation revealed a stone cairn containing one complete and one destroyed Bronze Age cist. Of relevance to this paper is the fact that in the Iron Age a cremation deposit containing charcoal and cremated bone had been inserted

into a small bowl-shaped depression in the upper section of the cairn. The remains were those of an adult, possibly female (McKinley 1998). The charcoal produced a radiocarbon determination of cal. BC 353–cal. AD 47 (UB-4196, 2091 ± 56) (OxCal 4: Bronk Ramsey 1995; 2001), the range of highest probability being 212 cal. BC–cal. AD 26. A similar cremation deposit nearby had been destroyed prior to excavation. Further cremated remains that were inserted into an extension to the cairn produced a radiocarbon determination of 81–345 cal. AD (UB-4425, 1804 ± 51) (OxCal 4: Bronk Ramsey 1995; 2001). That this monument subsequently acquired the status of *ferta* or ancestral burial mound is evidenced by the subsequent insertion of four long-cist burials containing extended inhumations dating from the fifth/sixth centuries AD, and a further insertion of nine extended inhumations dating from the seventh century AD. Where it could be determined, all burials were female. Burial ceased in the seventh century AD. This recurring reuse of prehistoric burial monuments can be attributed to intrusive groups burying their dead

among the perceived ancestors of an indigenous population in order to legitimise claims to sovereignty and territory by claiming the ancestors as their own, thereby gaining their protection. It can, of course, also be attributed to emerging dynasties from within, who by burying in a recognised ancestral burial place are making a social statement and manipulating a link with the original ancestors for the region (Bradley 1987; E. O'Brien 1999a, ch. 5; 2003, 67). One can but speculate as to the category to which the people who inserted the second/first-century BC cremations belonged.

Its strategic location on the southern border of *Tír Aodha* is a strong indicator that this monument was a boundary *ferta*. In early Irish law, ancestral burial mounds were regarded as important territorial boundary-markers upon which a claimant to territory had first to perform prescribed acts, which included driving animals across the *ferta* several times, before they could take control of the land (Charles-Edwards 1976).

A further element of the mythical aspect of this landscape is the freshwater lake, which never dries up and is locally reputed to be bottomless, named *Loch na mBan Finn* (the lake of the fair woman/women) (Fig. 2). In view of the prevalence of female burials in the nearby cairn, perhaps there is a connection between the two.

As part of the archaeological landscape it is noted that overlooking the estuary on the northern side are three standing stones. The first (Fig. 2), 0.7m high by 0.23m wide by 0.2m thick, aligned west-east, is located on a natural mound at a place named Sheegys, overlooking the estuary to the south (Lacy 1983, 87, no. 484). The other stones (located close to Mullanashee on Fig. 2) comprise a standing stone (1.45m high by 0.28m wide by 0.2m thick, aligned north-south) on a small knoll that slopes west towards the estuary, and a standing stone (1.5m high by 0.25m wide by 0.2m thick, aligned north-south) on elevated ground sloping west to Abbey Bay (an inlet off the estuary) (Lacy 1983, 88, nos 496, 497).

Finally, there is a monument on the northern shore of the estuary known as Doonfort (Fig. 2) that would merit further investigation. This is an undated small enclosure on the edge of a 20m cliff face overlooking the sea (Lacy 1983, 180–1, no. 1070, fig. 95). It has an uninterrupted view of the north and south rocks, and so whoever occupied this enclosure, at any period, undoubtedly controlled the entrance to the harbour.

Conclusion

One cannot but arrive at the conclusion that Ballyshannon Harbour was a very special place in antiquity, as is demonstrated by the myriad legends and stories associated with the harbour and the falls. A physical presence in the area in the Iron Age period is evidenced by (a) a cremation burial dated to the second–first century BC, (b) mariners who were apparently familiar with the river-mouth, and (c) the presence in the water of a Gaulish-type anthropoid hilted short sword, which was a rare and specialised weapon. I would suggest that all of this points to the possibility that this anthropoid sword could have been deliberately deposited in the River Erne, perhaps as a votive offering to whichever deity was responsible for the waters of the harbour and for the surrounding landscape.

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References

- Anon. 1925 La Tène sword-hilt. *Journal of the Royal Society of Antiquaries of Ireland* 55, 137–8.
- Bieler, L. 1979 *The Patrician texts in the Book of Armagh*. Dublin Institute for Advanced Studies.
- Bradley, R. 1987 Time regained: the creation of continuity. *Journal of the British Archaeological Association* 140, 1–17.
- Bronk Ramsey, C. 1995 Radiocarbon calibration and analysis of stratigraphy: the OxCal Program. *Radiocarbon* 37 (2), 425–30.
- Bronk Ramsey, C. 2001 Development of the radiocarbon program OxCal. *Radiocarbon* 43 (2A), 355–63.
- Byrne, M.E. 1966 *Contributions to a Dictionary of the Irish*

- Language. Fasciculus G* [reprint]. Dublin. Royal Irish Academy.
- Charles-Edwards, T.M. 1976 Boundaries in Irish law. In P. Sawyer (ed.), *Medieval settlement*, 83–7. London. Edward Arnold.
- Clarke, R.R. and Hawkes, C.F.C. 1955 An iron anthropoid sword from Shouldham, Norfolk, with related Continental and British weapons. *Proceedings of the Prehistoric Society* 21, 198–227.
- Fitzpatrick, A.P. 1984 The deposition of La Tène Iron Age metalwork in watery contexts in southern England. In B. Cunliffe and D. Miles (eds), *Aspects of the Iron Age in central southern Britain*, 178–90. Oxford. Oxford University Committee for Archaeology.
- Fitzpatrick, A.P. 1996 Night and day: the symbolism of astral signs on later Iron Age anthropomorphic short swords. *Proceedings of the Prehistoric Society* 62, 373–98.
- Hogan, E. 1910 *Onomasticon Goedelicum* [1993 reprint]. Dublin. Four Courts Press.
- Kelly, E.P. 1983 Bronze sword hilt. In M. Ryan (ed.), *Treasures of Ireland. Irish art 3000 BC–1500 AD*, 104. Dublin. Royal Irish Academy.
- Lacey, B. 2006 *Cenél Conaill and the Donegal kingdoms AD 500–800*. Dublin. Four Courts Press.
- Lacy, B. 1983 *Archaeological survey of County Donegal*. Lifford. Donegal County Council.
- Mac Giolla Easpaig, D. 1995 Placenames and early settlement in County Donegal. In W. Nolan, L. Ronayne and M. Dunlevy (eds), *Donegal: history and society*, 149–82. Dublin. Geography Publications.
- McKinley, J.I. 1998 Ballymacaward, Co. Donegal: cremated bone report. Unpublished report for the Trust for Wessex Archaeology Ltd.
- Mitchell, G.F. 1977 Foreign influences and the beginnings of Christian art. In P. Cone (ed.), *Treasures of early Irish art, 1500 BC to 1500 AD*, 54–92. New York. Metropolitan Museum of Art.
- O'Brien, E. 1998 Ballymacaward. In I. Bennett (ed.), *Excavations 1997: summary accounts of excavations in Ireland*, 16, no. 59. Bray. Wordwell.
- O'Brien, E. 2000 Ballymacaward. In I. Bennett (ed.), *Excavations 1998: summary accounts of excavations in Ireland*, 26, no. 101. Bray. Wordwell.
- O'Brien, E. 1999a *Post-Roman Britain to Anglo-Saxon England: burial practices reviewed*. British Archaeological Reports, British Series 289. Oxford.
- O'Brien, E. 1999b Excavation of a multi-period burial site at Ballymacaward, Ballyshannon, Co. Donegal. *Donegal Annual* 51, 56–61.
- O'Brien, E. 2003 Burial practices in Ireland: first to seventh centuries AD. In J. Downes and A. Ritchie (eds), *Sea change: Orkney and northern Europe in the later Iron Age, AD 300–800*, 62–72. Brechin. The Pinkfoot Press.
- O'Brien, M.A. 1976 *Corpus genealogiarum Hiberniae*. Dublin Institute for Advanced Studies.
- Pleiner, R. 1993 *The Celtic sword*. Oxford. Clarendon Press.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland. Problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1994 *Pagan Celtic Ireland. The enigma of the Irish Iron Age*. London. Thames and Hudson.
- Stead, I.M. 2006 *British Iron Age swords and scabbards*. London. British Museum.
- Stokes, W. 1895 The prose tales in the Rennes Dindshenchas. Part IV. *Revue Celtique* 16, 31–83.
- Toner, G. 2000 Identifying Ptolemy's Irish places and tribes. In D. M. Parsons and P. Sims-Williams (eds), *Ptolemy. Towards a linguistic atlas of the earliest Celtic place-names of Europe*, 73–82. Aberystwyth. CMCS Publications.
- Wallace, P.F. and Ó Floinn, R. 2002 *Treasures of the National Museum of Ireland*. Dublin. Gill and Macmillan.

Notes on some Iron Age finds from Ireland

Ragnall Ó Floinn

Introduction

The material culture of the Iron Age in Ireland is largely defined by decorative metalwork (ironically largely of bronze) representing high-status objects such as horse harness, tools and weapons and dress accessories. A significant minority consist of humbler objects found in the small number of excavated Iron Age burials. Of the 876 objects listed in Barry Raftery's catalogue of Irish Iron Age objects presumed to have been found in Ireland (Raftery 1983; see discussion in Raftery 1984; only six objects have a non-Irish provenance, and the British provenance of at least three of these has been questioned: MacDonald 2007, 84), 194 are noted as 'no provenance' while a further 33 are given less specific provenances to county, region or other non-specific locations (e.g. 'County Antrim', 'North of Ireland' or 'River Shannon'). At a superficial level, therefore, it might be thought that information as to find-place is known for some 75% of Iron Age material and appears to compare very favourably with other prehistoric and early medieval categories of finds (Table 1).

The level of provenance information is not equally represented across all categories of object, however, and the high proportion of provenanced finds can be accounted for by the large numbers of artefacts found in twentieth-century excavations, such as the 160 bone slips found at Lough Crew, Co. Meath, or the numbers of beads, tools, fibulae and other objects from burials at Knowth, Co. Meath, Grannagh, Co. Galway, Kiltierney, Co. Fermanagh, and Carrowjames, Co. Mayo. Among the larger bronzes, the proportion of unprovenanced examples is much higher—some 55% of pendants and 60% of horse-bits have no find details. The lower percentage of unprovenanced spearbutts (30%) may be accounted for in part by the fact that a quarter of the known examples (eighteen in all) were found at a single site—Lisnacrogher, Co. Antrim.

The proportion of unprovenanced Iron Age bronzes, therefore, is equal, if not greater, to those of other categories of prehistoric and early medieval bronzes (Table 1). In some find categories, represented by only small numbers of objects, the situation is even worse. Of the six so-called

'spoons' from Ireland, only one is provenanced, and this only as 'possibly Co. Westmeath' (Raftery 1983, no. 826), while only two of the seven 'Monasterevin'-type discs have recorded find-places. The wooden figure from Ralaghan, Co. Cavan (Raftery 1983, no. 828), is the sole provenanced example of the six human and animal representations from Ireland, while nothing at all is known of the find circumstances of the most spectacular Iron Age bronze object from Ireland, the 'Petrie Crown' (Raftery 1983, no. 821).

The high proportion of unprovenanced finds is in part due to the fact that a greater proportion of finds of Iron Age date were found in the nineteenth century, when there was less opportunity to record (and less interest in) the provenance and find circumstances of archaeological objects.

Consequently, newly uncovered accounts of the discovery of objects of Iron Age date, particularly when they can be identified with extant specimens in public collections, are of great significance. This essay, offered in recognition of Barry Raftery's lifelong work in documenting the material culture of the Irish Iron Age, sheds new light on some significant objects dating from the period, including the identification of three new hoards of horse harness.

Horse harness

Associated finds in the form of hoards are not as common in the Iron Age as in the Bronze Age. The most common are hoards of horse harness, consisting of horse-bits or Y-shaped pendants or sometimes a combination of the two.

Harness hoard from Raheen, Co. Roscommon

At a meeting of the Archaeological Institute held at Chichester in July 1853 (*Transactions of the Archaeological Institute Chichester 1853* (London, 1856)), among the antiquities shown at the meeting the following was exhibited by the Hon. Mrs Campbell:

A bronze bit for a bridle, found in a bog in Ireland, and two of the singular bronze objects resembling a large

Table 1—Comparison of a selected number of prehistoric and early medieval bronze artefact types from Ireland, showing total numbers and percentages of provenanced and unprovenanced examples (sources: Raftery 1983; Harbison 1969a; 1969b; Ramsay 1989; Eogan 1965; 2000; Kilbride-Jones 1980).

Type	Total no.	Unprovenanced (%)	Co. only provenance (%)	Provenanced (%)
All IA finds	876	194 (22.1%)	33 (3.8%)	649 (74.1%)
EBA axes	1,978	1,115 (56.4%)	180 (9.1%)	683 (34.6%)
EBA daggers	143	54 (37.8%)	15 (10.5%)	74 (51.7%)
EBA halberds	175	87 (49.7%)	12 (6.9%)	76 (43.4%)
MBA weapons	2,373	1,353 (57.0%)	158 (6.6%)	862 (36.3%)
LBA axes	2,036	1,136 (55.8%)	179 (8.8%)	721 (34.5%)
LBA swords	624	262 (42.0%)	36 (5.8%)	326 (52.2%)
IA spearbutts	72	22 (30.6%)	5 (6.9%)	45 (62.5%)
IA pendants	95	53 (55.8%)	6 (6.3%)	36 (37.9%)
IA horse-bits	134	81 (60.4%)	8 (6.0%)	45 (33.6%)
EM brooches	124	55 (44.4%)	18 (14.5%)	51 (41.1%)

spur, supposed to have been attached to the headstall of a bridle. They were discovered at Raheen, county of Roscommon. These remarkable reliques have only been found in Ireland. (See one figured in Gough's edition of Camden's *Brittania*, vol. iv, pl. xv.).

The description leaves no doubt that what was exhibited was a hoard consisting of a single horse-bit and a pair of Y-shaped 'pendants' of Iron Age date. Coincidentally, some three months earlier, a hoard with a similar composition—a horse-bit and two pendants—was sold by Sotheby's of London on 15 April 1853. This was a sale of objects from the collection of the Cork collector and antiquarian Rev. W. C. Neligan. Lot 24 consisted of 'A pair of curious antique Spurs, and part of Bridle, found in the county of Galway'. This was sold for £2 7s to the London dealer William Cureton. An annotated copy of the sale catalogue (Sotheby's 1853) in the National Museum of Ireland records the sale price and purchaser of each lot. Cureton subsequently sold the objects to the British Museum in May 1853 for £15 13s 6d as part of a group of Irish antiquities that he purchased at the sale. The objects in the hoard were entered in the Museum's register as 1853, 5-28, 3, 4 and 5 (Raftery 1983, nos 104, 303 and 304). Despite the fact that two similar groups of Irish antiquities surfaced in England in the same year, found in neighbouring counties, it is clear that they represent two separate finds: both have separate provenances

and came through different individuals, and the Galway hoard was already in the British Museum two months before that found at Raheen, Co. Roscommon, was exhibited.

It has not been possible to identify the objects from the Raheen hoard among the extant corpus of Iron Age objects; indeed, it is not known whether they ever made their way into a public collection. A horse-bit and pendant from County Roscommon are listed by Raftery (1983, nos 81 and 208). These formed part of a small collection of antiquities transferred from the museum of Trinity College to the Royal Irish Academy in 1882 along with a second pendant (Raftery 1983, no. 177). These cannot, however, be identified with the Raheen hoard, as the bit and pendant from Roscommon were illustrated by Charles Vallancey as being in Trinity College museum by 1784 (Vallancey 1784, pl. VIII), and they are also referred to briefly in a description of the college museum as 'curious headstall and bitt, found in Roscommon' (Wright 1825, 20).

— Raheen is a small townland of some 84 hectares, located some 5km west of the town of Elphin. The 1834 edition of the Ordnance Survey map shows extensive areas of bog in the area.

Harness hoard from Ballymyer, Co. Armagh

In William Shaw Mason's *Statistical account* (1816, 80), under the section entitled 'Ancient Buildings, &c, Military

Antiquities' for the parish of Ballymoyer (*recte* Ballymyer), Co. Armagh, the author refers to

Arrow heads of flint, (vulgarly called elf-stones,) and ancient bridle with large rings of copper gilt, and a pair of large spurs, of the same metal, were found in a bog, and sent to the museum of the Dublin Society.

The description of the finds from Ballymyer, though brief, is sufficient to suggest that, in addition to some flint arrowheads, a hoard comprising a horse-bit and pair of pendants of Iron Age type was recovered from the bog.

The subsequent history of these objects can be traced. In a catalogue of the museum of the Dublin Society published in 1813, among the objects classed as 'Miscellaneous' was No. 53, described as 'Bit of a Bridle found in a Turf-Bog, Ballymoyer' (O'Reilly 1813, 124). The associated 'pair of large spurs' from Ballymyer is not listed as such, but the next entry in the catalogue (no. 54) is described as a 'Headstall of Brass found at Tang, Co. Westmeath', and the term 'headstall' is frequently used in antiquarian circles to describe Y-shaped pendants of Iron Age date. This entry is followed immediately by nos 55 and 56, described as 'Ornaments of Brass dug out of a Bog' (*ibid.*, 124). It seems reasonable to assume that these were also Y-shaped pendants, and the fact that they were listed together and described as found in a bog suggests that they are associated and that they may well be the two pendants found with bit no. 53 in Ballymoyer bog. The catalogue entry does suggest, however, that by 1813 the association of the bit and pendants would already appear to have been lost.

The museum of the Dublin Society (later the Royal Dublin Society—RDS) was transferred to the Royal Irish Academy in 1859 (this transfer was effected on 28 February 1859: see *Proceedings of the Royal Irish Academy* 7 (1857–62), 121–2). Included in the RDS's collection of antiquities were two horse-bits (registered as R.77 and R.78) and four Y-shaped pendants (registered as R.69, R.70, R.71 and R.72). These were later renumbered by Sir William Wilde in his *Catalogue*—the bits as W.69 and W.70 (Wilde 1861, 617) and the pendants as W.158, W.165, W.166 and W.167. The identification of the RDS pendants is somewhat confused by Wilde, who stated that W.177 [*recte* W.171] was 'a very perfect and beautiful specimen . . . [with] . . . the remains of red enamel upon the decorated boss within the outer rim', which he illustrated (1861, 610 and fig. 519) wrongly as among the pendants deposited by the RDS.

Table 2—Concordance of register numbers of horse-bits and pendants from the museum of the RDS and suggested provenances.

Object	RIA. no.	Wilde no.	Raftery cat. no.	Provenance
Horse-bit	R.77	W.70	No 35	No locality
Horse-bit	R.78	W.69	No. 88 [also 69]	Ballymyer, Co. Armagh
Pendant	R.69	W.158	No. 187	Tang, Co. Westmeath
Pendant	R.70	W.165	No. 155	No locality
Pendant	R.71	W.166	No. 211	Ballymyer, Co. Armagh?
Pendant	R.72	W.167	No. 193	Ballymyer, Co. Armagh?

Fortunately, the RIA register and Wilde give descriptions and measurements of all six objects that enable them to be identified (Table 2).

The horse-bit was illustrated by the artist Kenelm Henry Digby in a notebook containing watercolour drawings of material sketched by him in the RDS and TCD museums sometime before 1817 (Fig. 1). Entitled 'The Naturalist's Companion', it is now in the State Library of New South Wales (MS PXE 869). Although they are rather amateurish (Digby was born in 1800 and made the drawings in Dublin before he left for Trinity College, Cambridge, in 1817), page 27 of the notebook shows a drawing of a three-link horse-bit with the caption 'an antient bit of a bridle 11 inches long found in a Turf bog at Ballymoyer County of Armagh'. Digby must have copied the information on the find-place from an accompanying label.

Both of the RDS horse-bits have knobbed rings, while Digby's drawing shows a bit with plain rings. This may, however, be due to Digby's inaccurate rendering of the details of the objects. The length of 11 ins (28cm) given by him for the Ballymyer bit matches more closely that of the bit registered as R.78/W.69 (Raftery 1983, no. 88), which measures 30cm in length, rather than R.77/W.70 (Raftery 1983, no. 35), which measures 31.4cm. No details are given for the two pendants, but if they did make their way into the collection of the RDS they may be the pendants registered as R.71/W.166 and R.72/W.167 on the basis that they have a similar patination to the bit R.78/W.69.

In his catalogue, Raftery illustrated as no. 69 a bit taken from a drawing in *The Newry Magazine* 1, No. 4 (Sept./Oct. 1815), 293–6. This was described as 'a drawing of an ancient



Fig. 1—Drawing of a bronze horse-bit from Ballymyer in the museum of the Royal Dublin Society, by Kenelm Henry Digby, c. 1810–17 (courtesy of the State Library of New South Wales, Australia).

brass bit, in the possession of Wm. Sharman of Waringstown, Esq'. Raftery tentatively identified this on the basis of similarities of form as perhaps an inaccurate representation of his no. 88, identified above as most likely the Ballymyer bit. Waringstown is in the north-east of County Down on the border with Armagh, some 25km north-east of Ballymyer parish. While it is possible that Sharman's bit was from Ballymyer, this cannot be the case as the Ballymyer bit was already in the RDS museum by 1813, three years before Bell's account in the *Newry Magazine*. It is not easy to reconcile this apparent conflict: while it could be that Sharman's bit represents an (otherwise unattested) additional bit from the Ballymyer hoard, it most likely

represents a separate, unrelated find that also made its way to the museum of the Royal Dublin Society.

The parish of Ballymyer (also spelt Ballymoyer and Ballymoier) extends over an area of some 1,600 hectares in south central County Armagh and the hoard's find-place cannot be defined more precisely. At the time of its discovery some two thirds of the parish was described as 'heathy mountain ground and bog' (Shaw Mason 1816, 87).

Harness hoard from County Clare

The *Ordnance Survey Memoir* for the parish of Clogher, Co. Tyrone, includes a drawing of a Y-shaped pendant accompanied by the following information:

The Bishop of Clogher has two similar ornaments found with a large snaffle bit in the county Clare in a large Danish rath on the western coast. Found on Knockmany, year unknown, near the druid's altar on the summit, either brass or copper. Now in possession of Reverend F. Gervais of Cecil, the proprietor of Knockmany. Sketched full size by R. Stotherd, Lieutenant Royal Engineers, March 10th 1833 (Day and McWilliams 1990, 39).

The pendant from Knockmany is now in the Armagh County Museum (Raftery 1983, no. 150). It was acquired by the museum in 1956 (without provenance) from Mrs Dorothy Rhodes (née Gervais) of Cecil Manor, Co. Tyrone, along with a second pendant (Raftery 1983, no. 194; Weatherup 1978, 39–40). Curiously, another Y-shaped pendant with almost identical decoration is also in the Armagh County Museum but with a provenance of Portnelligan, Co. Armagh (Raftery 1983, no. 140). This was acquired in 1935 as part of the Tenison collection. I am informed by Dr Greer Ramsay, Curator, that this provenance relates to Tenison's home and this allows of the possibility that it may have originally formed a pair with the Knockmany pendant. (Knockmany lies some 35km west of Portnelligan.)

The account indicates that the pendant was found in the immediate vicinity of a megalithic tomb. This is Knockmany passage tomb, set in a large cairn on top of a hill (Herity 1974, 224–5). Its find circumstances recall those of the pendant provenanced by Raftery to Drumanone, Co. Roscommon, formerly in the collection of George Petrie (Raftery 1983, no. 209). There is a portal tomb in the same

townland but Raftery gives no authority for his provenance. According to the manuscript catalogue of the Petrie collection, this pendant (registered as P.504) was 'found in Cromlech of Dermot and Graine Co. Sligo'. This suggests an association with one of the passage tombs in Sligo. More generally, the association of such Iron Age objects with megalithic tombs is reminiscent of other Iron Age finds from sites such as Loughcrew, Newgrange and Knowth, as well as the reuse of such tombs for burial at Kiltierney, Tara and Knowth.

The *Ordnance Survey Memoir* account also records a hitherto unknown Iron Age harness hoard consisting of a pair of pendants and a single bit found near the west coast of County Clare. In this case, the discovery was made not in a bog but in a 'large Danish rath', presumably some form of ringfort-like enclosure. Unfortunately, it has not been possible to identify any of these objects. Lord Robert Ponsonby Tottenham Loftus was bishop of Clogher between 1822 and 1850 but is not known to have been a collector.

Bit/pendant associations

The three new hoards bring the total number of hoards containing horse harness (that is, horse-bits and/or pendants) from Ireland to fifteen. The composition of such hoards is not consistent: of the fifteen, six consist of a single bit and pair of pendants, and another five contained a single bit and pendant. It must be remembered, however, that the majority are poorly documented, so that the possibility that some of the latter may originally have contained an additional pendant must be considered. Four hoards contained two bits and no hoard contained more than two bits or pendants—the Attymon hoard comprising a pair of bits and matching pendants (often considered typical) being exceptional. It follows that if such hoards contained 'sets' of horse harness, then such 'sets' contained but a single bit, and paired bits are the exception rather than the rule. There is also little evidence of matching bits and pendants being deposited; rather it would appear that the opposite is the case. Clearly the issue needs to be studied in greater detail.

Y-shaped pendant from Tang, Co. Westmeath

Two of the four pendants transferred from the RDS to the RIA have been identified as belonging to a hoard from the parish of Ballymyer, Co. Armagh. By a process of elimination, the 'Headstall of Brass found at Tang, Co.

Westmeath', listed as no. 54 in the published catalogue of the RDS museum (O'Reilly 1813, 124), must be one of the remaining two pendants now registered as R.69/W.158 and R.70/W.165 (Raftery 1983, nos 187 and 155). In fact, it can be identified with certainty as R.69, as the entry in the New Register describes this as 'old No. 54', presumably a reference to the entry in the catalogue of 1813. Tang is a local place-name for a settlement that also gives its name to a Roman Catholic parish which is approximately coterminous with the civil parish of Noughaval, a parish of some 4,700 hectares situated in the north-west of County Westmeath, close to the border with County Longford.

Y-shaped pendants from Moneyshanere and Bracknagrilly, Co. Derry?

The *Ordnance Survey Memoirs* for County Derry contain references to what may be two finds of Y-shaped pendants of Iron Age date.

The first is contained in an account of antiquities found in the south of the county:

An ancient brass spur of unusual size, 7 inches [17.78cm] wide at the bow and 5 inches [12.7cm] long at the level or from the bow to the roller, and as thick as a switch whip, would fit the thigh of the largest man in the parish, found many years ago in a flow bog in Moneyshanere, 1 and a half feet [45.72cm] under the surface by Robert Moore of the same townland, who sent it to the Dublin museum (Day and McWilliams 1995, 86).

It would appear from the account that the object ended up in a museum in Dublin but it is not clear what was meant by the term 'Dublin museum'. The description of the object would fit that of a Y-shaped pendant with a shank measuring some 13cm in length. Unfortunately, none of the unprovenanced pendants known to have been in the collections of the RDS, TCD and the RIA conform to the measurements suggested. While the unprovenanced pendant W.166 (Raftery 1983, no. 211) is of the requisite width, its shank measures some 18cm (7ins) and is thus too long.

The second pendant is described as follows:

An ancient brass spur 18 inches [45.72cm] long in the shank and very thick. The bow or arched part is 6 inches [13.24cm] wide and was discovered in 1832 by Rose

Bradly of Bracknagrilly in a small stream in the above townland, and now deposited in the cabinet of the Rev. J. Spencer Knox (Day and McWilliams 1993, 59).

This description would fit that of an Iron Age pendant, but the length of the object, at some 46cm, exceeds that of any known pendant (the longest known measures 36.6cm in length; Raftery 1983, no. 211). There is therefore the possibility that this (and the 'spur' from Moneyshanere above) may not, in fact, be descriptions of Iron Age pendants and may describe spurs of late or post-medieval date.

Horse-bit from Turlough, Co. Galway

Charles-Étienne Coquebert de Montbret was the French consul in Ireland between 1789 and 1793. In 1790 he visited the collector Ralph Ousley at his home at Willsborough, Castlereagh, Co. Roscommon, and described the collection of antiquities he saw there. Among these was 'A bit, *de cuivre*, for a horse, 15ozs, from the bog of Curlough, Co. Galway' (Ní Chinnéide 1971, 73). The weight given for the bit (around 425g) suggests that it may have been a heavy bronze bit of the type in use in the Iron Age and not a later bit of early medieval or late medieval date. A sample of Iron Age horse-bits of bronze weighed between 178g and 515g, with a mean of 360g. 'Curlough' is probably a misspelling of 'Turlough': there are two townlands of that name in County Galway.

Ousley died in 1803 and some of his collection passed into the hands of Robert Cooper Walker, including three trumpets from Carrigogunnell, Co. Limerick, which later came to the RIA via the duke of Northumberland (Coles 1963, 350–1). It is not possible to identify the Ousley bit today.

Monasterevin-type discs

Only seven examples are known of these most enigmatic of all Irish Iron Age objects. They have been variously described as dishes, discs, alms-dishes or incense-burners, offertory plates, patens, shields and chariot ornaments. Megaw (1970, 269) incorrectly stated that all six of the examples preserved in the National Museum of Ireland were provenanced to Monasterevin. (The seventh disc, with no provenance, was acquired by the British Museum; Raftery 1983, no. 792.) All six examples in the National Museum of Ireland had already been acquired by the Royal Irish Academy by 1857, when

they were catalogued by William Wilde and numbered W.1–W.6 (Wilde 1861, 637–40). Wilde was at a loss to suggest a function for the discs, concluding that 'the most probable conjecture is, that they were portions of shields' (*ibid.*, 638).

According to Wilde, information was only available for two of the six (W.3 and W.4); these were provenanced to Monasterevin and were from the Sirr collection. This refers to Henry Sirr, town major of Dublin (1764–1841), whose collection of antiquities was acquired by the Royal Irish Academy in 1843. This appears to be the only published provenance information for any of the series.

Additional information on the remaining four discs can be gleaned, however, from published and unpublished nineteenth-century sources. Examination of the list of objects acquired by the Royal Irish Academy from Major Henry Sirr contained in the manuscript volume entitled 'Donations Book of the Royal Irish Academy' preserved in the Irish Antiquities Division of the National Museum of Ireland suggests that he was in possession of two further discs for which a provenance is forthcoming.

In the Donations Book, the following entry occurs:

251, 252. Two Ancient Shields from Monasterevin.

No dimensions for these objects are given in the Sirr catalogue but they have been linked to the pair of discs now registered as W.3 and W.4 through the Academy's 'Old Register', a register of antiquities in the museum compiled between 1845 and 1853. Here, the dimensions for two objects registered as D.942 and D.943 match those numbered W.4 and W.3 respectively. In addition, a later pencilled note in the 'Old Register' identifies these as Sirr 252 and 251 respectively.

In the 'Old Register', however, the following two entries for D.944 and D.945 give dimensions that match the discs W.2 and W.5 respectively. The dimensions indicate that D.944 was circular and therefore complete, while D.945 was longer in one dimension than the other. There is no doubt, therefore, that they relate to W.2 and W.5, thus indicating that when this part of the register was compiled, four discs were entered consecutively.

Further on in the Sirr catalogue two objects are described as follows:

5, 6. Curious Antique shields found at Lismore in the County of Waterford.

Table 3—Concordance of register numbers and dimensions of the six Monasterevin-type discs in the museum of the Royal Irish Academy and suggested provenances.

Sirr no.	RIA no.	RIA dimensions	Wilde no.	Wilde dimensions	Raftery cat. no.	Provenance
252	D.942	11.3" x 11.3"	W.3	11.5"	787	Monasterevin
251	D.943	12" x 12"	W.4	Not given	786	Monasterevin
5 or 6	D.944	11" x 11"	W.2	11"	789	Lismore
5 or 6	D.945	10.3" x 8.6"	W.5	10"	790	Lismore
-	-	-	W.1	11"	788	(Co.) Armagh
-	-	-	W.6	Not given	791	(Co.) Armagh

As with the Monasterevin pair, no dimensions are given for these objects, but the fact that the catalogue refers to the Lismore objects as shields and that four of the Academy's six discs were registered successively in the 'Old Register' would suggest that D.942–D.945 refer to the four 'shields' in the Sirr collection, two of which were from Monasterevin, Co. Kildare, and the other pair from Lismore, Co. Waterford.

The four Sirr discs may thus be identified with reasonable confidence. Looking at the four discs in question, however, the pair identified by Wilde as from Monasterevin (W.3 and W.4) differ significantly in the execution of the ornament. Similarly, the pair from Lismore (W.2 and W.5) differ in the same respect. In each case, the 'pair' consists of one plainer disc that has curved elements of rounded section, with slack lentoid bosses and shallow central bowl, matched with a more accomplished disc with sharply keeled curved elements, sharply defined trumpets and lentoid bosses and deep bowls. It is therefore possible that the two pairs from the Sirr collection may have been incorrectly matched before they were registered, and it is also possible that W.3 (D.942) and W.2 (D.944) form one pair, and W.4 (D.943) and W.5 (D.945) form another. If this is indeed the case, it follows that it may not now be possible to identify which pair is from Monasterevin and which from Lismore, as no dimensions or descriptions are given in the list of the Sirr collection and both are similarly described (as 'ancient shields' and 'curious antique shields' respectively). Nevertheless, the earliest source to give dimensions for the objects—the Old Register—was compiled only a few years after the acquisition of the Sirr collection and this lists W.3 and W.4 consecutively, followed by W.2 and W.5. Until further information is forthcoming, we must accept at face value that the first pair are indeed those from Monasterevin and that the second, by process of elimination, are from Lismore, Co. Waterford.

At a meeting of the Royal Irish Academy held on 9 November 1846, the curator, Henry Clibborn, read a notice on certain bronze antiquities in the museum of the Academy, which was reported in the *Proceedings of the Royal Irish Academy* 3 (1846–7), 299–301. He noted the similarity in the decoration of 'some curious antique plates in the Museum' with that found on illuminated manuscripts, suggesting that these were Christian liturgical objects that might have been used as patens or communion plates. He was undoubtedly referring to the collection of Iron Age bronze discs. Although he did not indicate how many discs were in the collection at the time, he made specific reference to one disc pierced with an opening which he suggested acted as a cover for a second with a hollow, the pair together acting as an alms-dish. The first mentioned must be that numbered W.3, while the second is likely to be one of the other complete discs, perhaps W.4. What is more interesting, however, is the fact that he stated that

'a visitor to the Academy lately recognized these plates, as being very similar to two others, also composed of copper, which had been recently found in Armagh, and which he hoped would be soon deposited in the Museum, as they had been freely offered to our collection'.

While there is no formal record of the acquisition by the Academy of these two further discs, the fact that they had been 'offered freely' indicates that they were not being offered for sale and thus they would not have appeared in accounts of purchases.

By a process of elimination, it is likely that the pair found in County Armagh are those registered by Wilde as W.1 and W.6. Both are incomplete, representing the left side of two separate discs. They bear similar keeled ornament and are relatively flat in section.

From the above accounts it would appear, therefore, that all six discs now in the National Museum of Ireland had been discovered by 1846, and it is highly likely that these represent three pairs found at Monasterevin, Co. Kildare, Lismore, Co. Waterford, and County Armagh respectively, two of which had lost their provenance history by the time they were finally catalogued by Wilde in 1859. The identification of provenances for all six is of interest on two counts. Firstly, it would appear that such objects—whatever their function—were deposited (if not actually used) in pairs. Secondly, their widespread distribution—from counties Armagh, Kildare and Waterford—indicates a remarkable homogeneity across the country.

Spoons

The function of the enigmatic bronze 'spoons' or 'castanets' of Iron Age date remains to be determined. In the nineteenth century there was a general consensus that they were Christian liturgical objects and several theories as to their precise function were proposed. William Wilde included those in the Royal Irish Academy's museum in his manuscript catalogue of ecclesiastical objects in the belief that they were patens for the consecrated host. The museum's curator, Edward Clibborn, believed them to be Eucharistic spoons used for the administration of Communion bread (Barnwell 1862, 213; Way 1869, 82), while another suggestion was that they were used for removing wafers from the chalice (Barnwell 1864). An alternative view held that they were used in administering the sacrament of baptism (Rock 1869, 38).

There are six Iron Age 'spoons' provenanced to Ireland (Table 4); one is in the Liverpool Museum while the other five are in the collections of the National Museum of Ireland. All but one of these were listed by Albert Way in a paper on the examples known to him in 1869 (Way 1869).

The five examples in the National Museum of Ireland consist of two pairs and a singleton. The first pair were acquired as part of the collection of antiquities of Richard Murray of Mullingar, bought by the RIA for £80 in 1854 (*Proceedings of the Royal Irish Academy* 6 (1853–7), 95 and xiv). They had been exhibited by him at the Great Industrial Exhibition in Dublin in 1853. Listed under no. 1886 by 'R. Murray, Mullingar, Ireland, Prop.' were 'Three Patinas—one circular, and 2 oval and pointed' (Dublin 1853, 145). The latter are a pair listed as nos 11 and 12 by Albert Way (1869, 66–7). All three 'patinas' were subsequently acquired by the RIA and were registered by William Wilde in his manuscript Register of Ecclesiastical Antiquities along with a pair from the RDS, as they were then believed to be patens. (The first of Murray's 'patinas', described as 'circular', is, in fact, a late medieval pewter paten bearing a representation of the Crucifixion and is listed in Wilde's Ecclesiastical Register as no. 197.)

The second pair formed part of the RDS collection and are first mentioned in the catalogue of the RDS's museum in 1813, where they are referred to as 'No. 55–56 Ornaments of Brass dug out of a Bog' (O'Reilly 1813, 153). These were also exhibited at the Great Industrial Exhibition in Dublin in 1853 under no. 1932 and were described as 'Two pattens or spoon-shaped articles' (Dublin 1853, 153). When transferred to the RIA in 1859 they were registered as R.67 and R.68, each being described as a 'Metal Shell'. The entry for R.67 records that it was 'Old No. 55' and also that it was recorded as 'No. 45 Bronze Scoop, Irish Work'. R.67 was similarly described as 'No. 46 Bronze Scoop, Irish Work' and, while not stated in the RIA register, must be equated with no. 56 in the 1813 catalogue.

The fifth spoon was purchased from Henry Naylor, a dealer, of Liffey Street, Dublin, who had bought them at the sale of the contents of Killua Castle, Co. Westmeath, in June 1920. Killua, near Clonmellon, was the home of the Chapman baronets of Killua. The fourth baronet, Sir

Table 4—Concordance of register numbers and acquisition history of the Iron Age 'spoons' provenanced to Ireland.

Wilde no.	RIA no.	Way no.	Eccles. Reg. no.	Rafferty cat. no.	Source	Provenance
W.4	R.67	Fig. 14	200	No. 824	RDS	'Bog'
W.5	R.68	Fig. 15	201	No. 825	RDS	'Bog'
W.6		Fig. 12	199	No. 822	Murray Coll.	
W.7		Fig. 13	198	No. 823	Murray Coll.	
—	1920:47	—	—	No. 826	Killua Castle, Chapman Coll.	
—	—	Fig. 11	—	No. 827	Mrs Blackett; Roach Smith	'Turbary'

Benjamin James Chapman (1810–88), was a collector of antiquities who presented many objects to the Royal Irish Academy, none of which are provenanced (Wilde 1861, 432, 433, 436, 442). The antiquities in the sale formed part of his collection which, according to his daughter, were largely acquired locally, and a midlands provenance seems likely for the object.

The history of a sixth spoon from Ireland, now in the Liverpool Museums, is given by Albert Way (1869, 64–5), who stated that it was ‘Formerly in the possession of Mr C. Roach Smith, to whom it had been presented by Mrs Blackett. I have been informed by him that *it was found in a turbarry, as he believes, in Ireland* [italics mine].’ Way further states that it was presented by Roach Smith to Mr Mayer, and expressed the hope that it ‘may ultimately be deposited in the Free Public Museum in Liverpool’ (*ibid.*, 65).

While none of the Iron Age ‘spoons’ from Ireland are provenanced, some information on their history and find circumstances can be recovered. All appear to have been discovered in the late eighteenth or nineteenth century. Two were acquired as pairs, and one can presume that both pairs represent associated finds. Of the six, at least three were recovered from bogs, indicating again the wetland deposition circumstances of a significant proportion of Iron Age artefacts found in Ireland. Like the associated finds of pairs of horse-bits, pendants and bronze discs, it is notable that the decoration on the two Irish pairs is not matching.

Figures of animals

Raftery records four Irish Iron Age objects as representing animals and this paper makes comments on three of these. Two consist of the well-known figures of pigs, representing a boar and a sow, each measuring some 10cm in length and cast in bronze in the round (Raftery 1983, nos 830 and 831). They first appear in print in William Wilde’s *Descriptive catalogue of the antiquities of animal materials and bronze in the museum of the Royal Irish Academy*. Among the ‘metallic materials: miscellaneous’ are listed two objects: ‘No. 10 . . . a good representation of the ancient Irish pig’ and ‘No. 11, ditto, of a boar, fuller, and evidently of an improved breed’ (Wilde 1861, 640).

Nothing was then known of the provenance, history or date of these two figures, but their very inclusion in the Academy’s collection and Wilde’s descriptions in the published catalogue encouraged the belief that they were

ancient Irish castings. Françoise Henry (1947, 7) spoke of them as having the ‘characteristic round modelling and engraved details’ of Gaulish animal art. They figured in the ROSC exhibition of ancient Celtic art in 1967 along with the mask of a cow (Hunt 1967, no. 187), and also featured in the ROSC exhibition of 1977 (de Paor 1977, no. 28). In both catalogues, the authors dated them to the first century BC and described them as having being found in Ireland. The figure of the boar was chosen for inclusion in the exhibition *Treasures of Irish art 1500 B.C.–1500 A.D.*, which toured several venues in the United States in 1977–8. In the catalogue Frank Mitchell described the boar as a Celtic totem figure, noting that the cast figure ‘is pierced in a number of places, perhaps for attaching it to a helmet or some other parade item’ (Mitchell 1977, 55). Raftery commented on their date as follows: ‘Iron Age date uncertain. May be sander of late medieval date.’ This information was provided by the writer, who had spotted similar figures in a sale catalogue of the collection of decorative art objects of the Viennese banker and collector Dr Albert Figdor of Vienna, assembled between 1869 and 1927 (Von Falke 1930, no. 521). Sanders or pounce pots were used as containers for a fine chalky sand, known as pounce, sprinkled on paper to make it more receptive to ink. Such containers were made of various materials (wood, glass, metal or ceramics) and took many forms. The sand was inserted through screw-holes in the rear of each figure and was shaken out through holes in the mouths of the figures. They are both probably of German manufacture, dating from the sixteenth century. It is possible that they were relatively modern imports, and it is significant that Wilde did not state that they had been found in Ireland. It must not be automatically assumed, therefore, that all unprovenanced Iron Age objects in Irish or foreign collections were found in Ireland.

No provenance has hitherto been suggested for the hollow cast head of a horned cow or bull (Raftery 1983, no. 832). It was entered in the Academy’s ‘New Register’ and was assigned the number R.2949, indicating that it was already in the museum of the Royal Irish Academy by 1869 at the latest. Many of the objects in the Academy’s Old and New Registers were entered retrospectively, however, and this was the case with R.2949. In the Royal Irish Academy Committee of Antiquities’ Rough Minute Book for 5 July 1852, among payments made for antiquities was ‘Also a bronze ox head found near Mullingar in a bog, for 10/s’. Later on, the same transaction is recorded as ‘. . . Thos Mason Bronze ox head £- 10.-’. Given that there is no other

object in the collection that answers to this description, it can safely be concluded that the reference is to the bovine head registered as R.2949.

The absence of the appellation 'Esq.' after Thomas Mason's name suggests that he was a tradesman rather than a member of the gentry. His name does not appear in connection with any other Academy acquisitions, so he does not appear to have been a regular source from whom antiquities were acquired. No Thomas Mason is listed in contemporary trade directories as living or trading in Mullingar, Tullamore, Athlone or Birr. Among three tradesmen of that name listed in *Thom's Directory* for Dublin in 1852, however, is one Thomas Mason, Jeweller, of 34 Lower Sackville Street. He appears only to have been in business for a short period, and is listed only for the years 1850 to 1855. As many antiquities came to the Academy through jewellers and pawnbrokers, it is possible that the ox head was acquired from him. Whatever about the identity of the person from whom the Academy acquired the head, the minute enables us to identify the object as R.2949 and to say that it was found in a bog near Mullingar.

The Navan fibula

During the proceedings of a meeting of the Archaeological Institute held on 3 December 1853 (*Archaeological Journal* 10 (1853), 65), the collector R. H. Brackstone exhibited a zoomorphic penannular brooch, 'found in 1852 in ploughing on the east side of the Navan Rath, near Armagh'. Brackstone's brooch was acquired in 1868 by the British Museum, where it is registered as 1868, 7-9, 19 (Kilbride-Jones 1980, 136, no. 129). In discussing this brooch, Brackstone stated that

'Some years since a human skeleton was found in the same field, with a brooch lying among the ribs. This is now in the Museum of the Royal Irish Academy.'

If Brackstone was correct that this brooch was in the RIA museum by 1853, it is possible that it *might* be identified with the safety-pin fibula W.473 (Wilde 1861, 568) and as no. 378 in Raftery's catalogue, as this is the only brooch provenanced to Navan then in the collection. This is a relatively simple fibula of leaf-bow type and was acquired as part of the Dawson collection in 1843. Unfortunately Brackstone gives no description of the brooch found with

the skeleton that might enable it to be identified.

This discovery is, however, referred to in another source. The archives of the Irish Antiquities Division of the National Museum of Ireland contain two printed pages torn from a book (the title of which has not been traced) and pasted onto card. The pages, numbered 85 to 87, contain a description of the museum of St Columba's College, Dublin, entitled 'The Museum'. It would appear that the pages came to the NMI when part of the College's collection was acquired in 1906. They give a brief account of how the museum was constituted and how it 'consists of specimens of Irish and other antiquities, obtained by the Founders, principally from Eugene O'Curry's collection, and placed in the College principally by the late Rev. J. H. Todd, D.D, sometime President of the Royal Irish Academy'. As Todd died in 1869, the publication must date from sometime after that. The account includes a description of some of the principal objects in the collection and it is stated that these were taken from the revised catalogue of the exhibition of works of art at the South Kensington Museum, London, in 1862. On page 85 there is a reference to a brooch as follows:

'Fibula, in white bronze, covered with a remarkable bright green patina, lyre-shaped, a small fragment of amber, which probably formed a central boss, remains; the acus [i.e. the pin] is wanting. Found, lying between the ribs of a human skeleton at Navan Rath, the site of the ancient Emania; probably the work of the 4th or 5th century.'

While the description of this brooch in the revised edition of the published exhibition catalogue tallies exactly with that given above, it is not there described as from Navan but merely as 'found in Ireland' (Robinson 1863, 43, no. 868). There is no doubt, however, that the brooch described as exhibited by the College in London is the well-known safety-pin fibula from Navan which gives its name to this subgroup of Irish Iron Age fibulae (Raftery 1983, no. 389).

From the above it might seem as if two brooches were found with burials at Navan. It is very unlikely, however, that two brooches were discovered in similar circumstances at Navan in or around the middle of the nineteenth century, one of which went to the RIA museum by 1852 (according to Brackstone) while the other was in St Columba's College museum by 1862. We must therefore conclude that both accounts refer to the discovery of a single brooch with a burial at Navan. The balance of probability must favour the

account identifying the brooch found with the burial at Navan as that in the collection of St Columba's College rather than Brackstone's less precise reference to its being in the RIA museum. It is possible that Brackstone was aware of the discovery of a brooch in a burial at Navan and merely assumed that it was in the RIA museum.

The Navan brooch is one of two Iron Age safety-pin fibulae acquired by the National Museum from the College of St Columba in 1906, both of which are provenanced to Navan and registered consecutively as 1906:39 and 1906:40. In the Museum's register, the former is stated as 'Found in Navan Rath (Emania) near Armagh', while the latter is recorded as 'Found in Navan Rath in 1841'. While there are clearly some inconsistencies in the above accounts which remain to be resolved, on present evidence there is a very strong possibility that the larger of the Navan fibulae (1906:39) was indeed found in a grave. The new information gives a welcome context to this, the finest of the Irish safety-pin fibulae, and it may now also be added to the small number of inhumations of Iron Age date known from Ireland (Raftery 1981, 191–4).

Conclusion

The accounts above include new provenances for a number of Iron Age antiquities and highlight the importance of using the full range of antiquarian source material. Not only can information on find-places be recovered but also valuable contextual details on find circumstances: whether an object was found in a wetland or a dryland location, and whether associated with a monument or not.

A re-examination of the individual histories of the high-status Iron Age objects catalogued by Raftery would undoubtedly yield even further information, enabling pieces to be identified by a process of elimination. For example, the fine iron sword with decorated bell-shaped hilt-guard from Ballinderry, Co. Westmeath (Raftery 1983, no. 247), must surely be the same object as the 'iron sword with bronze ornament or hilt, trumpet pattern, found near Moate, Co. Westmeath' that was exhibited by William Wakeman at the Great Industrial Exhibition in Dublin in 1853 (Dublin 1853, no. 1927), and with this information it may yet be possible to recover further details of the circumstances of its discovery. Similarly, many of the objects provenanced merely to the River Shannon (Raftery 1983, nos 171, 257, 332, 333, 354, 399, 425, 426 and 427) and first recorded in print by Wilde

in 1859 undoubtedly arrived into the museum of the Royal Irish Academy through the Shannon Commissioners as part of the several donations of antiquities uncovered in the course of drainage works in the late 1840s. A careful examination of the records relating to these donations may yet enable individual pieces to be provenanced to particular locations. Such a detailed study would be a fitting continuation of Barry Raftery's monumental catalogue.

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References

- Barnwell, E.L. 1862 Bronze articles supposed to be spoons. *Archaeologia Cambrensis* (3rd ser.) 8, 208–19.
- Barnwell, E.L. 1864 The bronze spoon-shaped objects. *Archaeologia Cambrensis* (3rd ser.) 10, 57–61.
- Coles, J. 1963 Irish Bronze Age horns and their relationship with northern Europe. *Proceedings of the Prehistoric Society* 29, 326–56.
- Day, A. and McWilliams, P. (eds) 1990 *Ordnance Survey memoirs of Ireland: Parishes of County Tyrone I: north, west and south Tyrone 1821, 1823, 1831–36*. Belfast. Institute of Irish Studies.
- Day, A. and McWilliams, P. (eds) 1993 *Ordnance Survey memoirs of Ireland: Parishes of County Londonderry V: Maghera and Tamlaght O'Crilly*, vol. 18. Belfast. Institute of Irish Studies.
- Day, A. and McWilliams, P. (eds) 1995 *Ordnance Survey memoirs of Ireland: Parishes of County Londonderry XI: south Londonderry, 1821, 1833, 1836–7*, vol. 31. Belfast. Institute of Irish Studies.
- De Paor, M. 1977 The exhibition of early animal art. In

- ROSC '77—*The Poetry of Vision: an international exhibition of modern art and early animal art*, 119–91. Dublin. ROSC.
- Dublin 1853 *Official catalogue of the Great Industrial Exhibition 1853* (4th edn). Dublin. John Falconer.
- Eogan, G. 1965 *Catalogue of Irish bronze swords*. Dublin. The Stationery Office.
- Eogan, G. 2000 *The socketed bronze axeheads in Ireland*. Prähistorische Bronzefunde, Band 22. Stuttgart. Steiner.
- Gough, R. (ed.) 1806 *Brittania, or A chorographical description of the flourishing kingdoms of England, Scotland, and Ireland: and the islands adjacent; translated from the edition published by the author in MDCVII; enlarged by the latest discoveries, by Richard Gough*. London. T. Payne and Son/G.G.J. and J. Robinson.
- Harbison, P. 1969a *The axes of the early Bronze Age in Ireland*. Prähistorische Bronzefunde, Band 9/1. Munich. Beck.
- Harbison, P. 1969b *The daggers and the halberds of the early Bronze Age in Ireland*. Prähistorische Bronzefunde, Band 6/1. Munich. Beck.
- Henry, F. 1947 *Irish art in the Early Christian period*. London. Methuen.
- Herity, M. 1974 *Irish passage graves*. Dublin. Irish University Press.
- Hunt, J. (ed.) 1967 The exhibition of ancient Celtic art. In ROSC '67—*The Poetry of Vision: an international exhibition of modern painting and ancient Celtic art*, 123–89. Dublin. ROSC.
- Kilbride-Jones, H. 1980 *Zoomorphic penannular brooches*. London. Society of Antiquaries of London.
- MacDonald, P. 2007 *Llyn Cerrig Bach. A study of the copper alloy artefacts from the insular La Tène assemblage*. Cardiff. University of Wales Press.
- Megaw, J.V.S. 1970 *Art of the European Iron Age: a study of the elusive image*. Bath. Adams and Dart.
- Mitchell, G.F. 1977 Foreign influence and the beginning of Christian art. In P. Cone (ed.), *Treasures of Irish art 1500 B.C. to 1500 A.D.*, 54–60. New York. The Metropolitan Museum of Art and Alfred A. Knopf.
- Ní Chinnéide, S. 1971 A journey from Cork to Limerick in December, 1790. *North Munster Antiquarian Journal* 14, 65–74.
- O'Reilly, B. 1813 *A catalogue of the subjects of natural history, in the museum of the Right Hon. and Hon. The Dublin Society, systematically arranged, also of the antiquities, &c.* Dublin. Graisberry and Campbell.
- Raftery, B. 1981 Iron Age burials in Ireland. In D. Ó Corráin (ed.), *Irish antiquity: essays and studies presented to Professor M.J. O'Kelly*, 173–204. Cork. Tower Books.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities* (2 vols). Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Ramsay, W.G. 1989 Middle Bronze Age weapons in Ireland. Unpublished Ph.D thesis, Department of Archaeology, Queen's University, Belfast.
- Robinson, J.C. (ed.) 1863 *Catalogue of the special exhibition of works of art of the mediæval, Renaissance, and more recent period, on loan at the South Kensington Museum, June 1862* (rev. edn, January 1863). London. Science and Art Department of the Committee of Council on Education.
- Rock, Rev. 1869 Celtic spoons. *Archaeological Journal* 26, 35–51.
- Shaw Mason, W. 1816 *A statistical account, or parochial survey of Ireland*, vol. 2. Dublin. Graisberry, Campbell, Faulkner and Hibernia Press.
- Sotheby's 1853 *Catalogue of a valuable collection of antiquities, the property of a well-known Irish collector . . . which will be sold by auction, by Messrs S. Leigh Sotheby and John Wilkinson . . . on Friday, the 15th day of April, 1853, and following day, at one o'clock precisely*. London. Sotheby's.
- Vallancey, C. 1784 *Collectanea de rebus Hibernicis*, vol. IV. Dublin. Luke White.
- Von Falke, O. (ed.) 1930 *Die Sammlung Dr Albert Figdor, Wien, Erster Teil, Fünfter Band*. Berlin and Vienna. Paul Cassirer and Artaria and Co.
- Way, A. 1869 Notice of certain bronze relics, of a peculiar type, assigned to the Late Celtic Period. *Archaeological Journal* 26, 52–96.
- Weatherup, D.R.M. 1978 Armagh County Museum: archaeological acquisitions 1935–1959. *Journal of the Royal Society of Antiquaries of Ireland* 108, 23–50.
- Wilde, W. 1861 *A descriptive catalogue of the antiquities of animal materials and bronze in the museum of the Royal Irish Academy*. Dublin. Hodges, Smith, and Co.
- Wright, G.N. 1825 *An historical guide to the city of Dublin* (2nd edn). London. Baldwin, Cradock and Joy.

Iron Age glass-working: the evidence from Němčice in Moravia

Natalie Venclová

The earliest glass objects of the European Bronze Age and Iron Age have been studied many times from the typological and technological point of view, one of the aims of research being their provenance. Usually, however, only glass-making or glass-working regions or traditions can be tentatively identified, whereas individual workshops revealed by manufacturing artefacts are very rarely found. This is also true for the La Tène (LT) period (third–first centuries BC), from which only a few pieces of raw glass and almost no semi-products or rejects are known. Missing completely, until now, was the explicit evidence for a local ‘Celtic’ glass-working as is provided by the find record from the site of Němčice. It is this evidence that is the subject of the following paper.

The term ‘Celtic glass’ deserves some comment. It is commonly used for the specific glass products known from La Tène Europe, i.e. glass bracelets, Ringperlen-beads and small rings/finger-rings made of high-quality glass of several hues, by a unique technique and in an assortment unknown elsewhere. The term should be understood as a sort of ‘trade-mark’ rather than as a designation of the producers or consumers concerned.

The site

The La Tène period site of Němčice in Moravia (Czech Republic), already known by individual finds by the end of the nineteenth century, did not present its full find potential before the early 21st century. After the year 2000, local amateur archaeologists recovered a large collection of artefacts by field-walking and prospection by metal detectors on the site. Systematic surface survey and magnetometric prospection was then conducted on the site, but no archaeological excavations have been undertaken so far. The magnetometric research indicates, besides settlement features, the presence of several pyrotechnological areas, possibly indicating manufacturing installations.

Němčice is situated in the middle of Moravia (Fig. 1, site 7), in the proximity of the so-called Amber Route, an important trade route that connected northern and southern

Europe since prehistoric times. The settlement is located in slightly elevated terrain and covers an area of approximately 45–50 hectares; according to the geophysics, the site is apparently unenclosed and no enclosing feature was detected in the field survey. This region is covered by some of the most fertile soils within Moravia and was densely populated in the La Tène period.

The finds collection from Němčice includes, besides pottery, at least 1,500 bronze items (brooches, bracelets, belt accessories, other personal ornaments etc.), some 100 iron objects, more than 500 coins and over 2,000 glass objects. Significantly, this large and important assemblage includes not only final products and their fragments but also manufacturing waste products related to copper-alloy metallurgy, the minting of coinage and glass-working on the site. According to the date range of the finds assemblage as a whole, the settlement existed from LT B2 to the end of LT C2, i.e. spanning the period from c. 300 to 130/110 BC (Čížmář and Kolníková 2006).

The glass assemblage from Němčice

The glass assemblage, which is the focus of attention in this paper, represents by its more than 2,000 pieces the largest assemblage of the third–second century BC in La Tène Europe and encompasses the full range of ‘Celtic’ glass artefacts. The glass bracelets, with more than 500 items, are second only to the collection found at Manching in Bavaria (Fig. 2). Included are the Ringperlen-beads, small rings/finger-rings, spacers and beads. Special attention is given to the artefacts that relate to manufacturing, some of it unknown in La Tène contexts. Glass waste and some of the final glass products, namely beads, will be described in more detail.

The assemblage of glass beads includes both polychrome and monochrome beads. Polychrome beads are represented by only a few items, some of which were produced and used in the La Tène period, while the others come from the preceding period (e.g. yellow beads with blue-white stratified eyes). There is no evidence for their local manufacture. The

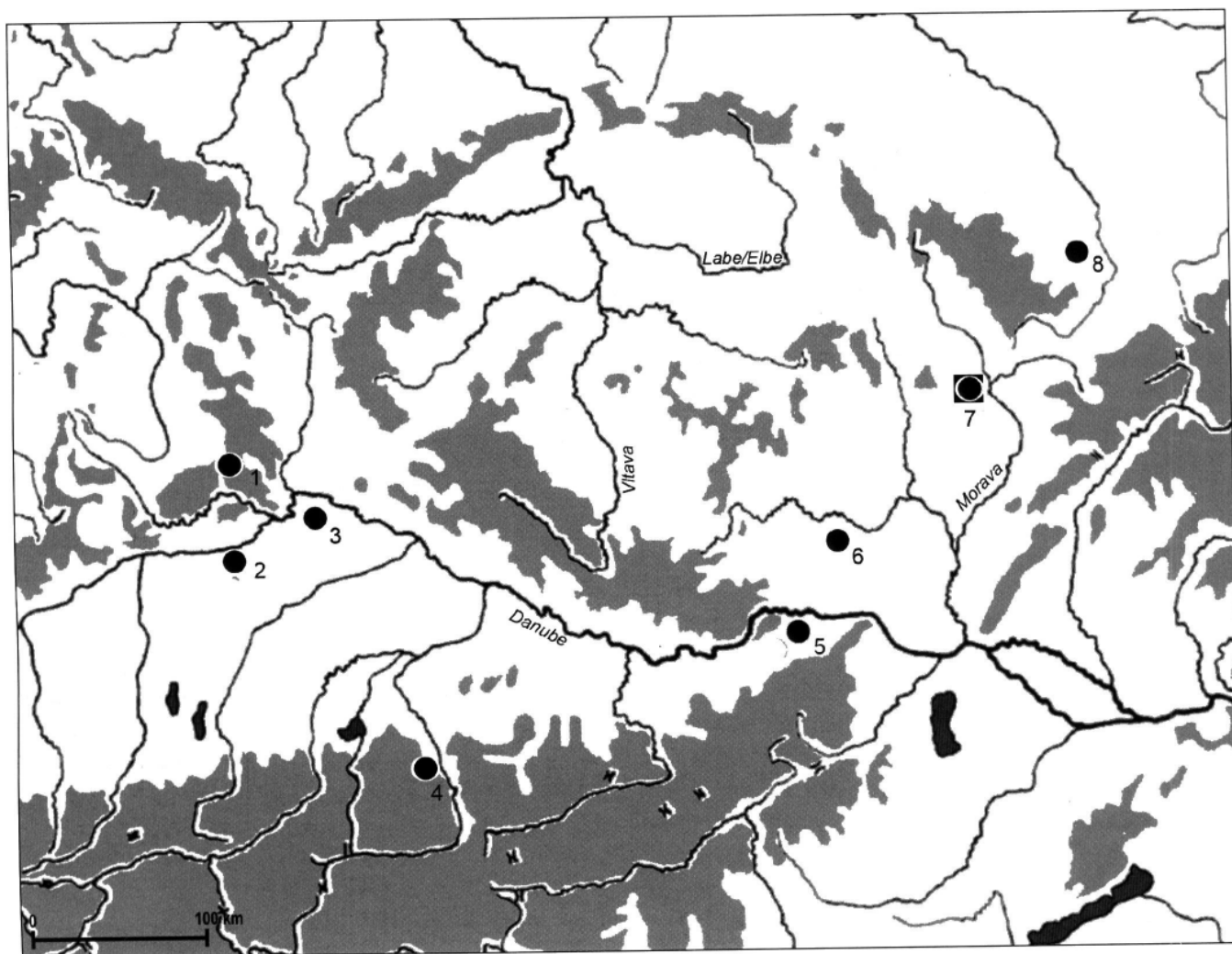


Fig. 1—Unfortified settlement and production agglomerations in central Europe with beginnings in the third century BC (LT B2–C1): 1 Berching-Pollanten, 2 Manching, 3 Eggfing, 4 Dürrnberg, 5 Etzersdorf, 6 Roseldorf, 7 Němčice, 8 Nowa Cerekwia.

earlier types may indicate an earlier phase of settlement on the site, or they could have been retained as curated items, while the later types may have been produced elsewhere.

The assemblage of monochrome beads consists of over 600 items of mainly simple shapes from globular or rounded to annular, of the types 102, 108, 114, 117, 119, 120, 122, 132 and 155 according to the classification by Venclová (1990), and a lesser quantity of some other types. In all cases they are wound beads. The most numerous is type 117 (rounded translucent cobalt blue beads), of which there are over 500, followed by type 119 (rounded translucent dark blue beads) and type 122 (rounded translucent light green beads). Well represented is type 155, very small (about 5mm in diameter) annular translucent cobalt blue beads (over 100 items). Other types were only rarely found.

Monochrome, namely blue beads, belong to the range of glass products that have little diagnostic value. Small rounded or very small annular beads were worn in Europe since the late Bronze Age at the latest, up to the La Tène period and later (Venclová 1990, 45–56). Blue rounded beads were extremely frequent in the late Hallstatt to early La Tène period (sixth–fifth century BC), when they accompanied stratified eye beads, beads with wavy line or melon beads in necklaces (e.g. Matthäus 1983; Venclová 1990; 1994). Rounded beads, and also the even smaller annular beads in several shades of blue glass (types Venclová 152, 153, 155, 157), can then be found since LT B2, in LT C1 and up to LT D1. They were mainly contained in La Tène graves (examples: Jenišův Újezd, Tursko, Manching-Steinbichl, Münsingen-Tägermatten, Vevey: Venclová 1990,

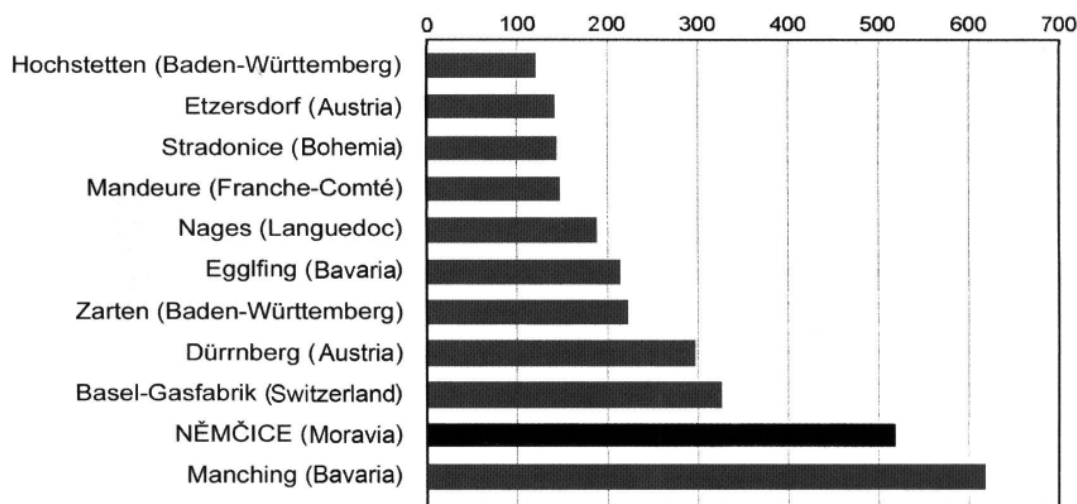


Fig. 2—The largest collections of La Tène glass bracelets (after Venclová 1990 and Karwowski 2004).

55–6, with refs; Zepezauer 1993, 81) and less often within settlement sites. Judging from the finds from NĚmčice, however, the small number of tiny beads recovered may to a large extent reflect the fact that they can easily be overlooked without wet sieving, and they can be recovered rather exceptionally without a target search. They occur more frequently in recently recovered finds (e.g. Gebhard 1989, 177, Taf. 47; Ofer and Uenze 2003, Abb. 2; Uenze 2005, Taf. 5:46–50).

The finding of a large number of small beads (not to mention the other glass artefacts) at NĚmčice was surprising, even when a target search for glass objects by experienced persons was undertaken on the site. The explanation for the high frequency of small beads found was provided by further finds, namely raw glass and glass waste, which are evidence of local production of the beads concerned, as well as of other glass artefacts.

Glass-working evidence

Glass-working artefacts, the numbers of which are given only approximately since their processing has yet to be completed, belong to the following types.

1. Raw glass, cobalt blue (over 20 pieces) or light green (one piece). Raw glass is represented by amorphous

pieces of translucent glass, usually with sharp edges. Small chips of glass or pieces of fused glass are not included in this category since they need not be related to glass-working. (Fig. 3: 1, 2.)

2. Glassy material, blue (more than ten pieces). Lumps of non-homogeneous, bubbly material, translucent to opaque, dark to cobalt blue, sometimes with clayey layers. (Fig. 3: 4.)
3. Semi-products of rounded beads, cobalt or dark blue, types 117 and 119 (over 100 pieces), or light green, type 122 (several pieces). Semi-products of rounded beads are represented by multiple coils of threads: glass thread was wound several times on the rod; the resulting coil has the shape and size of a bead, but the coils are not fused. (Fig. 4: 1.)
4. Semi-products of annular cobalt blue beads, type 155 (over 30 pieces). Semi-products of annular beads are represented by very carefully spirally wound fine threads, producing a tube made of up to eight coils. The tiny annular beads were then produced by cutting the tube into single coils. (Fig. 4: 4.)
5. Rejects of rounded cobalt blue beads of type 117 (about 80 pieces). Wound beads with asymmetrical perforation; the body of the bead was getting so thin on one side that the bead perimeter was finally interrupted. They are almost-finished beads that have fallen off the rod. (Fig. 4: 2.)

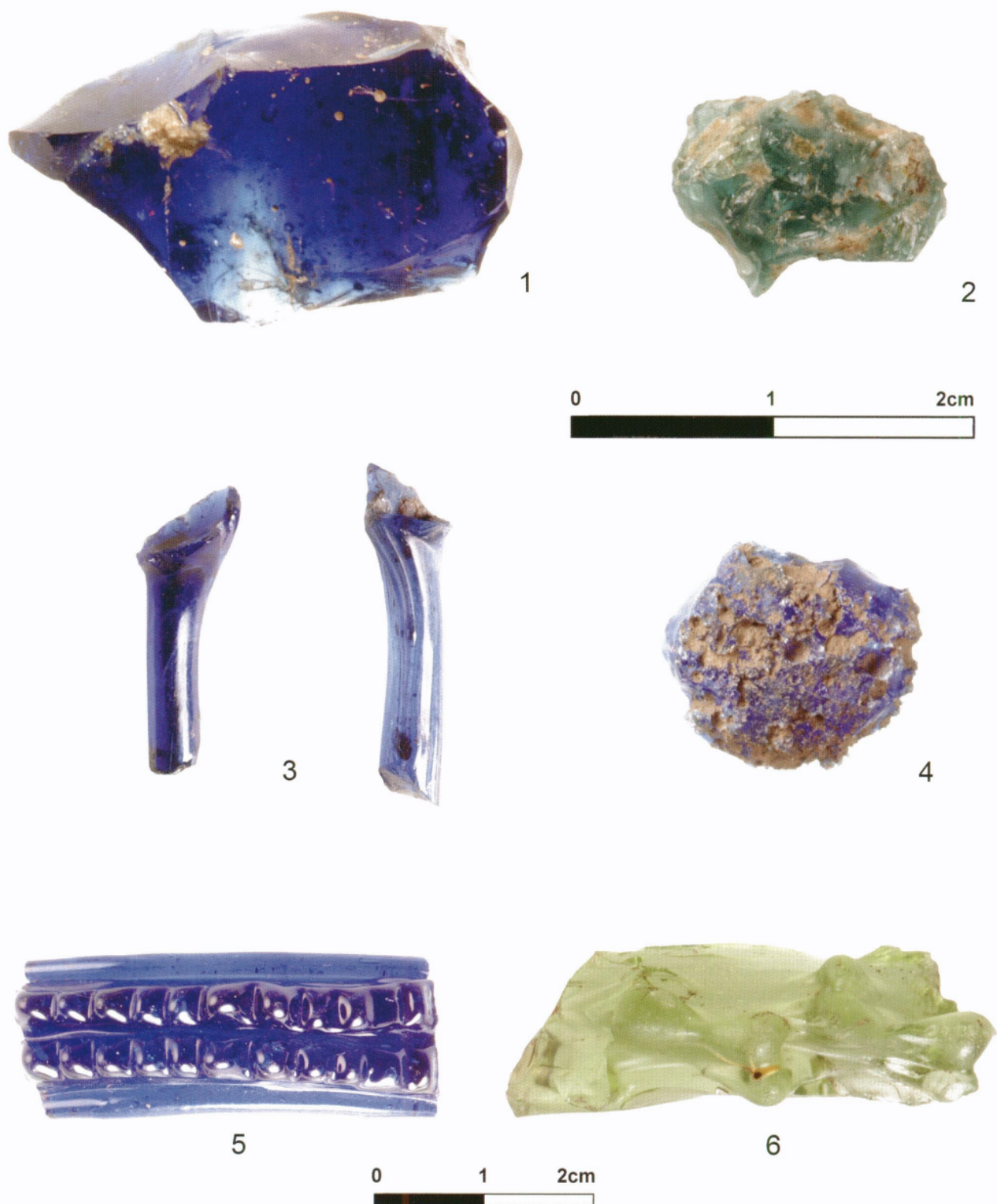


Fig. 3—Némčice: 1, 2 raw glass, 3 glass threads, 4 glassy material, 5, 6 glass bracelets (photo: H. Toušková).

6. Rejects of annular cobalt blue beads of type 155 (several pieces). Exceptional cases of coils with unfused (disconnected) ends.
7. Glass threads (over 50 pieces). Fragments of translucent blue threads of circular or oval section, thinning at one end. (Fig. 3: 3.)
8. Glass drops (over ten pieces). Small drops of translucent blue glass.

According to these production remnants, the manufacture of larger rounded cobalt blue beads of types 117 and 119 (Fig. 4: 3) and light green beads of type 122, as well as the tiny annular cobalt blue beads of type 155 (Fig. 4: 5), is attested at NĚmčice. The semi-products and rejects cannot be, on typological grounds, unequivocally connected with glass bracelet production, but other manufacturing artefacts such as raw glass, glassy lumps, threads and drops may be related to it. It should be stated that semi-products or rejects of bracelets have not yet been found anywhere; this, however, is not surprising since the relatively large pieces of glass involved would almost certainly have been recycled.

By their visual characteristics, quality and shades of colour, the glass of beads produced at NĚmčice is identical to that of the bracelets from the site, be it the translucent, not easily corroding, glass of cobalt blue colour or the less-frequent translucent light green glass (Fig. 3: 5, 6).

Chemical evidence

The chemical composition of glass objects from NĚmčice was studied using two types of analyses. First, SEM-EDS microanalysis was conducted by V. Hulínský in the Department of Glass and Ceramics of the Institute of Chemical Technology (ICT) in Prague; second, Neutron Activation Analysis (NAA) was performed by J. Frána and M. Fikrlé at the Institute of Nuclear Physics of the Academy of Sciences of the Czech Republic at Řež. The aim of both methods was to compare the glass of bracelets, beads and manufacturing waste from NĚmčice as well as with the contemporary La Tène glasses (see Venclová *et al.* 2007 for the first results). As expected, these objects were made from natron glass (Na-Ca-Si), corresponding both in their main constituents as well as in colourants to the so-called Celtic glass from the La Tène period of the third–first centuries BC. More recently analysed glass assemblages are available for comparison, either from Bohemia (Frána *et al.* 1987; Frána

and Maštálka 1990; 1994), Germany—e.g. Manching (Gebhard 1989) or Kirchzarten (Burkhardt 2006)—or north-east Austria (Karwowski 2004), as well as from Britain and France (Henderson 1987). Not all analyses are quite compatible, but the uniformity of the scope of La Tène glass composition is well recorded.

Glasses from NĚmčice were divided by V. Hulínský according to the concentration of the main oxides, Na₂O, CaO and SiO₂, into three groups. The significant feature is that each of these groups, which in fact are very similar to each other, involved samples of raw glass, semi-products and waste as well as glass beads and bracelets; glass of bracelets and manufacturing waste had the same characteristics. The similarity to the previously analysed assemblages from Bohemia and Manching was stated. This is true also of the contents and ratio CaO:Na₂O, and of the colouring components Cu:Co in cobalt blue glasses as analysed by J. Frána.

Bracelets found at NĚmčice comprise the chronologically diagnostic types of the LT C1–C2 period and, according to the results of the chemical analyses, glass-working could have taken place there in that time-span. The question, however, is when the monochrome beads were made. Judging from the duration of the settlement activities and the European typological parallels, it could have been during the whole of, or any part of, the LT B2–C2 period.

The European context

The site of NĚmčice and its glass assemblage have an exceptional position in Europe in the third–second centuries BC. Their significance is apparent against the background of the settlement pattern of the central European La Tène period on the one hand and in the context of the European history of glass on the other.

NĚmčice is an unenclosed (unfortified) settlement site, which can, by its extent and its extensive specialised production activities, be compared to the La Tène central places—either unenclosed production and distribution agglomerations or hillforts/oppida. There is, however, one marked difference: while the settlement agglomeration of NĚmčice was already founded shortly after 300 BC, both types of the above-mentioned centres have their origins some 100 years later. The beginnings of the oppida in different parts of La Tène Europe are subject to discussion, but could not have occurred earlier than during LT C2, which means



Fig. 4—Némčice, glass beads: 1, 4 semi-products, 2 rejects, 3, 5 final products (photo: H. Toušková).

about the middle or perhaps the first half of the second century BC (for Bohemia see Drda and Rybová 2001, figs 14 and 15) or even later (for western Europe see Kaenel 2006), and the same is presumed in the case of the unenclosed settlement agglomerations. The phenomenon of large open settlements with specialised production activities already existing in central Europe in the third century BC is a new fact, which, however, should not be surprising, since the significance of the LT B2/C1 period was pointed out, for example, in the context of the so-called industrial zones of that time (Venclová 1995; 2001). Apparently, besides Némčice, the non-fortified settlements with origins in LT B2 or C1 of Roseldorf and Etzersdorf in Lower Austria, Nowa

Cerekwia in Upper Silesia (Karwowski 2004; Salač 2005) or Berching-Pollanten in Oberpfalz (Schäfer 2002; 2003) also belong to this type of settlement, and the existence of a similar settlement at Dürrnberg and possibly at Manching (Fig. 1), where it would have preceded the foundation of the oppidum on the site (Sievers 1999; Gebhard 1989, 182–5), cannot be excluded. Other sites of this kind certainly existed, although sufficient data are lacking at present.

The Némčice site is not, however, less significant from the perspective of glass history. The assemblage of glass from Némčice is the largest of its kind in the third and early second centuries BC in Europe. The glass-working waste, final products and their chemical composition provide

evidence of the earliest recorded glass workshop of the La Tène period, where glass artefacts belonging typologically as well as chemically to the group of so-called Celtic glass were made. Products of the glass workshop were monochrome beads and bracelets, and perhaps other types of objects. Although the manufacture of 'Celtic' glass products by the third century BC was assumed in some regions north of the Alps (one of them in a region close to NĚmčice: Venclová 1990, map 9), unequivocal evidence of glass-working sites of that period was not available. Large numbers of final products alone, or less perfect ('misshapen') products (reported, for example, from Eggling in Bavaria: Uenze 2000; 2005), fused glass or single non-analysed and typologically non-diagnostic finds of manufacturing waste (cf. Brand 2002, 114, Abb. 3) cannot be considered sufficient evidence for local manufacture (cf. Wagner 2006, 36–8, for the critique of some finds concerned), and all the other records of local glass-working were related, up to now, to the following period, which means not earlier than around the middle of the second century BC.

Other finds from NĚmčice, namely coins and bronze artefacts, reflect the narrow contacts with the central Danube region and the Adriatic (Čižmář and Kolníková 2006). The origin of 'Celtic' glass, so different from other glass products of its time, has not been solved yet. If the impulses (and first glass masters?) necessary for the development of glass-working in La Tène Europe originated in southern Europe or the Mediterranean, then they could easily have reached central Europe via the Amber Route, which connected the south and north of Europe for many centuries. The site of NĚmčice, as a production centre of its time, with evidence for coinage and bronze metallurgy, must have also been recognised as very suitable for founding one of the earliest 'Celtic' glass workshops.

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References

- Brand, C. 2002 Graphitton und Glas: Studien zur keltischen Keramik- und Armringproduktion vor dem Hintergrund Dürrnberger Siedlungsfunde. In C. Dobiat, S. Sievers and T. Stöllner (eds), *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*, 107–16. Bonn. Habelt.
- Burkhardt, A. 2006 Analytischer Bericht. In H. Wagner, *Glasschmuck der Mittel- und Spätlatènezeit am Oberrhein*, 323–36. Ausgrabungen und Forschungen 1. Remshalden. Verlag Bernhard Albert Greiner.
- Čižmář, M. and Kolníková, E. 2006 NĚmčice—obchodní a industriální centrum doby laténské na Moravě (NĚmčice—a La Tène trading and industrial centre in Moravia). *Archeologické rozhledy* 58, 261–83.
- Drda, P. and Rybová, A. 2001 Model vývoje velmožského dvorce 2.–1. století př. Kr. (Modell der Entwicklung des Herrengehöfts im 2.–1. Jahrhundert v. Chr.). *Památky archeologické* 92, 284–349.
- Frána, J. and Maštalka, A. 1990 Neutronová aktivací analýza laténských skel z Lovosic (Neutron activation analysis of glass finds from the site of Lovosice). *Archeologické rozhledy* 42, 657–60.
- Frána, J. and Maštalka, A. 1994 Analýzy laténských skel z jižních Čech a z oppida Stradonice (Analyses of La Tène period glasses from South Bohemia and the oppidum of Stradonice). *Archeologické rozhledy* 46, 584–93.
- Frána, J., Maštalka, A. and Venclová, N. 1987 Neutron activation analysis of some ancient glasses from Bohemia. *Archaeometry* 29, 69–89.
- Gebhard, R. 1989 *Der Glasschmuck aus dem Oppidum von Manching*. Die Ausgrabungen in Manching 11. Stuttgart. Steiner Verlag.
- Henderson, J. 1987 Glass. Glassworking. In B. Cunliffe, *Hengistbury Head, Dorset. Vol. I: The prehistoric and Roman settlement, 3500 BC–AD 500*, 160–3, 180–6. Oxford. Oxford University Committee for Archaeology.
- Kaenel, G. 2006 Agglomérations et oppida de la fin de l'âge du Fer. Une vision synthétique. In C. Haselgrove (ed.), *Les mutations de la fin de l'âge du Fer*, 17–39. Collection Bibracte 12/4. Glux-en-Glenne. Centre Archéologique Européen.
- Karwowski, M. 2004 *Latènezeitlicher Glasringschmuck aus Österreich*. Mitteilungen der Prähistorischen Kommission Bd. 55. Wien. Verlag der Österreichischen Akademie der Wissenschaften.
- Matthäus, H. 1983 Perlen mit Zickzackzier. In O.-H. Frey (ed.), *Glasperlen der vorrömischen Eisenzeit I mit Unterlagen von Th. E. Haevernick*, 1–127. Marburger Studien zur Vor- und Frühgeschichte 5. Mainz am

- Rhein. Philipp von Zabern.
- Ofer, M. and Uenze, H.P. 2003 Zur Glasproduktion in der jüngerlatènezeitlichen Grosssiedlung von Steinebach (Steinebach-Süd), Gemeinde Wörthsee, Lkr. Starnberg. *Bayerische Vorgeschichtsblätter* 68, 65–78.
- Salač, V. 2005 Vom Oppidum zum Einzelgehöft und zurück—zur Geschichte und dem heutigen Stand der Latèneforschung in Böhmen und Mitteleuropa. *Alt-Thüringen* 38, 279–300.
- Schäfer, A. 2002 Manching–Kelheim–Berching–Pollanten. Eisen als Wirtschaftsfaktor. In C. Dobiati, S. Sievers and T. Stöllner (eds), *Dürrnberg und Manching. Wirtschaftsarchäologie im ostkeltischen Raum*, 219–41. Bonn. Habelt.
- Schäfer, A. 2003 Pollanten. In H. Beck, D. Geuenich and H. Steuer (eds), *Reallexikon der Germanischen Altertumskunde*, Bd. 23, 264–7. Berlin/New York. De Gruyter.
- Sievers, S. 1999 Manching—Aufstieg und Niedergang einer Keltenstadt. *Bericht der Römisch-Germanischen Kommission* 80, 5–24.
- Uenze, H.P. 2000 Die jüngerlatènezeitliche Siedlung von Eggfing. *Bayerische Vorgeschichtsblätter* 65, 1–38.
- Uenze, H.P. 2005 Neue Funde von Eggfing (Eggfing II). *Bayerische Vorgeschichtsblätter* 70, 57–94.
- Venclová, N. 1990 *Prehistoric glass in Bohemia*. Praha. Institute of Archaeology.
- Venclová, N. 1994 Skleněné korály z pohřebiště v Manětíně-Hrádku (Glass beads from the cemetery of Manětín-Hrádek). In E. Soudská, *Die Anfänge der keltischen Zivilisation in Böhmen*, 89–125. Praha. Krystal OP.
- Venclová, N. 1995 Settlement area, production area and industrial zone. In M. Kuna and N. Venclová (eds), *Whither archaeology? Papers in honour of Evžen Neustupný*, 161–9. Praha. Institute of Archaeology.
- Venclová, N. 2001 *Výroba a sídla v době laténské. Projekt Loděnice* (Production and settlement in the La Tène period. The Loděnice Project). Praha. Archeologický ústav.
- Venclová, N., Hulínský, V., Frána, J. and Fikrlé, M. 2007 Němčice nad Hanou—nová sklářská dílna doby laténské (Němčice nad Hanou—new glassworking site of the Iron Age–La Tène period). *Historické sklo 4. Sborník pro dějiny skla*, 9–16. Čelákovice. Městské muzeum.
- Wagner, H. 2006 *Glassmuck der Mittel- und Spätlatènezeit am Oberrhein*. Ausgrabungen und Forschungen 1. Remshalden. Verlag Bernhard Albert Greiner.
- Wedepohl, K.-H. 2003 *Glas in Antike und Mittelalter*. Stuttgart. E. Schweizerbart'sche Verlagsbuchhandlung.
- Zepezauer, M.-A. 1993 *Mittel- und spätlatènezeitliche Perlen. Glasperlen der vorrömischen Eisenzeit III mit Unterlagen von Th. E. Haevernich*. Marburger Studien zur Vor- und Frühgeschichte 15. Marburg. Hitzeroth.

3. Contacts and connections

Missing links and false relations: architecture and ideas in Bronze Age Scotland and Ireland

Richard Bradley

PART ONE: FIXED MONUMENTS, PORTABLE ARTEFACTS

Studies of portable artefacts are quite different from those of monuments, and few archaeologists are equally adept at both kinds of research. One of the rare exceptions is Barry Raftery. Not only has he written an important study of hillforts, he is also a leading expert on Iron Age metalwork. Both approaches raise questions about chronology and long-distance connections.

Comparisons between diagnostic artefacts have always been a feature of prehistoric archaeology. They are possible as those objects travelled over great distances. Because they could be brought together and compared, new types could be modelled on unfamiliar prototypes. That is not possible with monuments. Although they might have been used in similar ways to one another, it was the ideas that they expressed which were shared between different communities. As the structures themselves were immobile, their characteristics had to be transmitted verbally. For that reason there was more room for variation.

Barry Raftery has often compared Irish *La Tène* metalwork with that of Iron Age Britain. This paper is concerned with an earlier period and a different kind of evidence. It discusses the problematical relationship between Bronze Age monuments in Scotland and Ireland and considers some of the ways in which it has been investigated.

The influence of modern geography

Such studies have encountered three main problems. The first is created by conducting the analysis on too small a scale. This is illustrated by a field survey on the Scottish island of Barra, towards the southern limit of the Outer Hebrides. In this case Keith Branigan identified a series of seven 'enlarged cists—oblong or slightly wedge-shaped megalithic structures between 6 m and 9 m long and 1.2–2.5 m wide' (Branigan 1997, 285). At first they were claimed as an unusual local type, and one example was dated by

excavation to the transition between the late Neolithic and the early Bronze Age (Fig. 1).

Such features seem oddly familiar, for in every respect—their ground-plans, their sizes and their chronology—they are not unique, although it is true that they are unknown elsewhere in Scotland. They have all the characteristics of wedge tombs, the commonest form of megalith in Ireland (Walsh 1995). In fact, Barra is 100 km west of the Scottish mainland and only twice that distance north of County Donegal, where similar structures are known. When the results of the project were published, the link between these groups of monuments was hardly mentioned (Branigan and Foster 1995, chapter 3, 165 and 177–83). This seems to have happened because the sites are separated by a modern boundary.

Problems of chronology

A second source of confusion arises where monuments that share architectural features were built at different times from one another. That applies to the comparisons that are often made between the recumbent stone circles of north-east Scotland and those in south-west Ireland (Fig. 1).

There is no doubt that there were connections between the two areas. Some of the earliest metal in Scotland was of Irish origin and may have come from the copper-mines at Ross Island (O'Brien 2004a). Stuart Needham (2004) has also drawn attention to the introduction of Cornish tin to north-east Scotland. He makes the interesting point that the local stone circles, which seem to belong to the same phase, are usually aligned towards the south or south-west. They appear to acknowledge the sources of these materials. The structures may also have been directed towards the moon and the setting sun.

Aubrey Burl (2000, 262–9) takes the argument further, for he sees a direct connection between the stone circles of Aberdeenshire and Munster. The monuments share certain characteristics: most face south or south-west; one of the stones (the 'recumbent') was a horizontal block; and the heights of the uprights were often graded from one side of

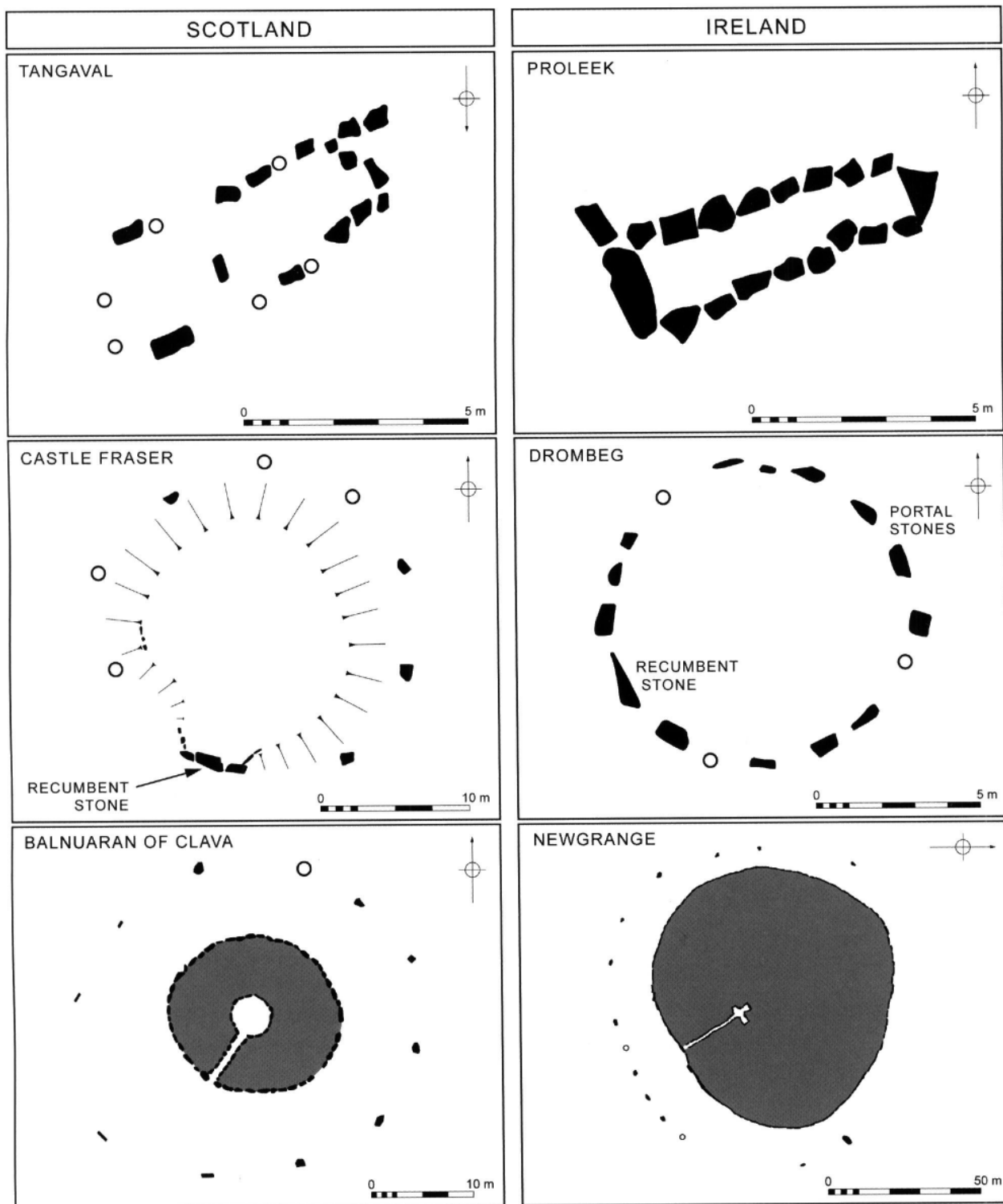


Fig. 1—*Top row:* 'Enlarged cist' on the Tangaval Peninsula, Barra, and wedge tomb at Proleek. *Middle row:* Recumbent stone circles at Castle Fraser and Drombeg. *Bottom row:* Passage tombs enclosed by stone circles at Balnuaran of Clava and Newgrange (information from Branigan and Foster 1995, Walsh 1995, RCAHMS 2007, Fahy 1959, Bradley 2000 and O'Kelly 1982). In Figs 1–4, open circles represent the positions of stone sockets or fallen monoliths.

the perimeter to the other. These structures made use of quartz and were frequently associated with cremations. But there the resemblance ends. The Irish examples were smaller than the Scottish sites; they did not employ the same number of orthostats as those structures; the recumbent stone was less conspicuous than its equivalent in Scotland; and they were commonly provided with an entrance that could be framed by the tallest monoliths. Still more important, the Aberdeenshire stone circles had cairns inside them, and some were associated with Beaker pottery. They seem to have been built in the late third millennium BC (Bradley 2005). The direct dating evidence from sites in Munster shows that they were constructed during the late Bronze Age (O'Brien 2004b). Burl's interpretation must be reconsidered.

Structural sequences

A third problem is that different types of monument are defined by their surface appearance, yet there is no reason to suppose that they were built in a single operation. It takes excavation to show how they developed over time. Unless that has been established, there is a risk of misleading comparisons.

For many years specialists on Neolithic archaeology had compared the Clava Cairns of the inner Moray Firth with Newgrange in the Boyne Valley (Fig. 1). The Clava tradition included ring-cairns and passage tombs, and both were enclosed by stone circles (Henshall 1963, 12–39; Henshall and Ritchie 2001, 80–97). Following O'Kelly's excavation, it was generally accepted that the mound at Newgrange was contemporary with the ring of monoliths that surrounded it (O'Kelly 1982, chapter 6).

That became more difficult to accept in the light of new fieldwork on the site, which suggested that the stone setting at Newgrange was actually a secondary development, later in date than the pit and post circles outside the principal monument (Sweetman 1985; Stout and Stout 2008, 84–8). Renewed excavation at Balnaran of Clava—the type-site for the Clava Cairns—raised a further problem. In this case it established that the passage tombs were contemporary with the monoliths surrounding them, but they had not been built during the Neolithic period; instead they dated from the early Bronze Age (Bradley 2000, chapter 10). Even if the stone circles at Newgrange and Clava had been related to one another, the structures that they enclosed originated at

different times. At Balnaran of Clava the stone circles were built as the chambered cairns went out of use (Bradley 2000, chapter 4), and in Aberdeenshire a similar sequence accounts for the relationship between recumbent stone circles and ring-cairns (Bradley 2005, chapter 5). Perhaps the stone setting at Newgrange can be interpreted in the same way, in which case it would have been constructed as the use of that site came to an end.

The sources of confusion

There are three main reasons why these errors occurred.

If monuments were the physical embodiment of widely shared ideas, those ideas might have been current over a longer period than individual styles of artefacts. A useful comparison is with the practice of depositing objects in rivers and bogs. In Ireland it extended from the Neolithic period to the first millennium AD, but the composition of those deposits changed over time. The links that have been claimed between stone circles in Aberdeenshire and Munster might illustrate a similar point. The monuments could have enshrined fundamental beliefs about the dead, the moon and the sun—beliefs that were sustained for more than a thousand years—but they were constructed at quite different times. Indeed, O'Brien (2002) points out that in Irish folklore the south-west is still associated with the passage of the dead. The configuration of these sites might have expressed widely shared ideas about the world, but it was those beliefs that remained the same, rather than the architecture that expressed them.

A second feature is that already-existing monuments in both Scotland and Ireland could have been brought back into use in ways that their original builders had never envisaged. Their surface appearance need not have changed, but their significance was transformed. Again Newgrange provides an illustration, for during the currency of Grooved Ware and Beaker ceramics the focus of prehistoric activity extended from the hidden spaces of the tomb to the structures built around it (Cooney 2006; Stout and Stout 2008, 84–8). The same applies to a variety of monuments in Scotland, many of which originated in the later third millennium BC. Long after they had been 'closed' by the raising of a ring of monoliths, they were reused as cemeteries. On a few sites new stone or timber settings were created inside an older monument (Bradley and Sheridan 2005, 278–9).

A third element is equally important. Monuments were prominent features in the landscape and remained intact long after they apparently went out of use. Not only could they provide a focus for later activity, they could offer a source of inspiration for people wishing to create new buildings. That would be especially likely if the architecture of these ancient structures made sense in terms of current ideas. That may explain why the Clava passage graves were built over a thousand years later than similar tombs in the vicinity. It was not just that the older monuments provided an architectural prototype. It is clear that in some cases their chambers were still accessible and even contained Beaker burials (Bradley 2000, illus. 177). The reused monuments played the same role as those that were newly built, even though they were constructed using different techniques.

With these suggestions in mind, it is worth revisiting the examples discussed in the first part of this paper: wedge tombs and their wider significance; the relationship between stone circles, passage tombs and ring-cairns; and the sharing of structural elements between monuments in north-east Scotland and those in south-west Ireland. Finally, the paper considers the possible links between two classes of monument that have seldom been compared with one another: Irish ring-barrows and small Scottish henges.

PART TWO: FALSE RELATIONS AND MISSING LINKS

Wedge tombs, passage tombs and stone circles (Fig. 2)

One implication of recent fieldwork at Clava, and at recumbent stone circles in Aberdeenshire, is that these monuments were significantly later in date than had been supposed. Whilst those in north-east Scotland were sometimes associated with Beaker pottery (Bradley 2005, chapter 5), the radiocarbon dates from Balnuaran of Clava, Raigmore and Newton of Petty suggest that Clava Cairns were built and used between the late third millennium and the early second millennium BC. They extend between about 2340 and 1800 BC (Bradley 2000, chapter 10).

This has two implications. It suggests that the stone circles associated with these sites could have been of roughly the same age as the example at Newgrange; although there is no direct dating evidence, the monoliths on that site enclosed a much older monument. The same may have

happened on the Hill of Tara, where another passage tomb, the Mound of the Hostages, was located inside a ring of 'fire pits' of early Bronze Age date. The excavation records are rather limited, but these features resemble the stone sockets found on other sites. They are associated with radiocarbon dates of 1890–1700 BC (O'Sullivan 2005, 228–33).

The new chronology also suggests that the Clava passage tombs might have been contemporary with Irish wedge tombs, which are associated with dates between approximately 2350 and 1900 BC (Brindley and Lanting 1992; O'Brien 1999; Schulting *et al.* 2008). That is not unlikely as there are monuments that share some of the characteristics of Clava Cairns on the west coast of Scotland and even in the north of Ireland. At Kintraw, for example, a round cairn has a graded kerb just like structures of that type (Simpson 1967), and a similar arrangement is evident at the badly damaged Beltany 'stone circle' in County Donegal (Burl 2000, 83–6). The latter site is within the distribution of wedge tombs.

Despite important differences of ground-plan, wedge tombs and Clava Cairns share a number of features (Fig. 2). They were built and used over the same period of time. In contrast to Neolithic structures, both groups of monuments are generally aligned towards the south-west, and each of them is decorated with cup-marks. An Irish site, Clogherny Meeneriggal in County Tyrone, recalls the Scottish monuments in another respect, for there an excavated wedge tomb is surrounded by a circle of monoliths (Davies 1939). Again the megalithic monument faced south-west. The space in between the tomb and that stone setting was defined by a layer of cobbling. A similar feature has been observed at Clava passage tombs, where stone platforms extend outwards from the kerbstones to the uprights of the circle. Both may be paralleled at Newgrange, where a deposit of quartz, which O'Kelly (1982) interpreted as the remains of a fallen wall, created another platform extending from the kerb of the passage tomb around the entrance to the monument. It is not clear when it had formed, but outside it there was a bank of yellow clay and the ring of standing stones (Cooney 2006; Stout and Stout 2008, fig. 58).

These developments would normally be treated separately, but all of them could have taken place during the same period. They seem to illustrate common concerns. Wedge tombs and Clava Cairns were built simultaneously and are among the latest groups of megaliths in these islands. They share similar orientations and decoration. At the same time, the stone circle at Newgrange may have been built

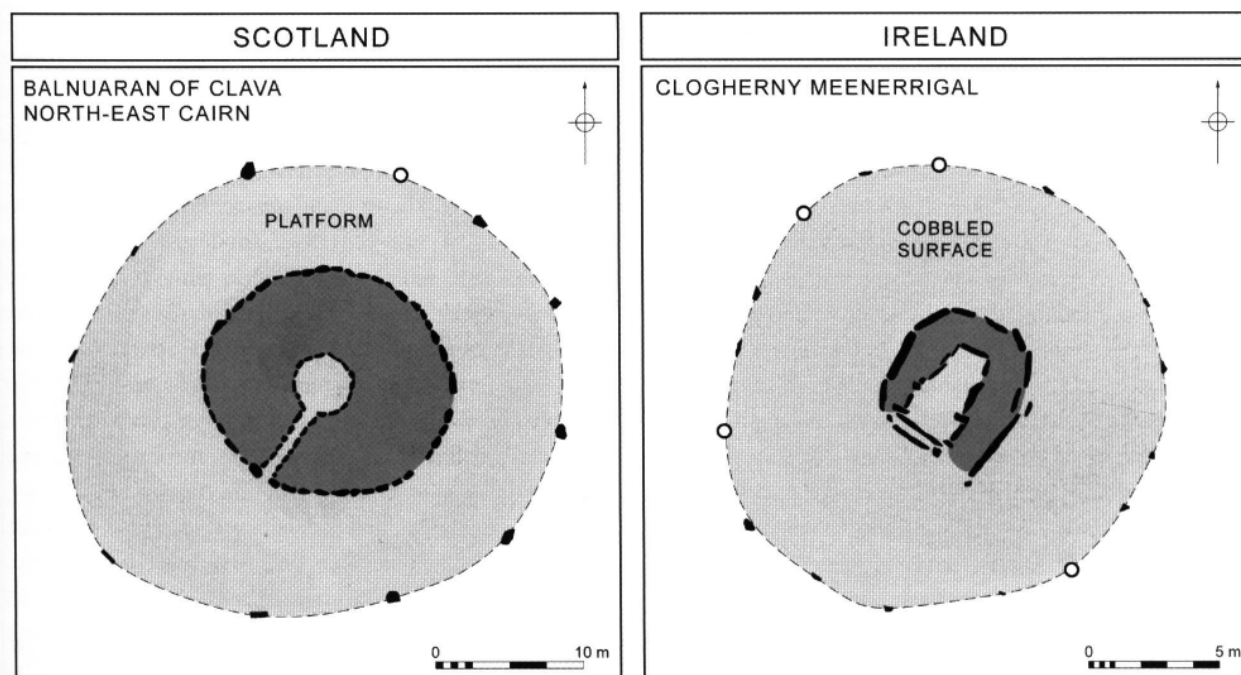


Fig. 2—*Left*: Passage tomb enclosed by stone circle and rubble platform at Balnuaran of Clava. *Right*: Wedge tomb enclosed by stone circle and cobbled surface at Clogherney Meeneriggal (information from Bradley 2000 and Davies 1939).

whilst the Scottish monuments were in use, although this is by no means clear. The standing stones at all these sites could have been associated with platforms, whether or not they were newly constructed, and it seems possible that rings of monoliths were erected as the passage graves were ‘closed’.

Stone circles, ring-cairns and henge monuments (Fig. 3)

Stone circles were erected around passage tombs as the Clava Cairns went out of use. A similar sequence has been identified at the recumbent stone circles of north-east Scotland (Bradley 2000; 2005).

It was first thought that the stone circles were freestanding monuments and that the structures found inside them were added at a later date. In the light of recent excavations that idea must be rejected. Although individual monuments may have been used for a comparatively short period, it seems clear that from the outset they were planned with their final form in mind. The earliest structures on these sites were often ring-cairns, their kerbstones increasing

in height towards the south-west. The same feature can be observed in the stone settings that surround them. In the recumbent stone circles of north-east Scotland the principal focus is provided by a massive horizontal block flanked by two tall pillars. It gives the impression of an entrance that had been closed (Royal Commission on the Ancient and Historical Monuments of Scotland 2007, 59–67).

Alex Gibson (2004) has compared this process with the development of henge monuments. He argues that in several cases the conventional sequence must be rejected. Rather than treating these earthworks as empty enclosures inside which timber and stone circles were built, he suggests that the sequence should be reversed. The argument would certainly apply to two of the Scottish examples excavated during recent years. At Broomend of Crichtie one of these earthworks surrounded an earlier stone circle and cut across the avenue leading into that monument. The earthwork was built around 1900 BC (Bradley and Clarke 2008). Similarly, at North Mains, where it had appeared that the bank and ditch enclosed two rings of posts, it now seems as if the wooden structures pre-dated the other features by several hundred years. In fact, the henge was not constructed until

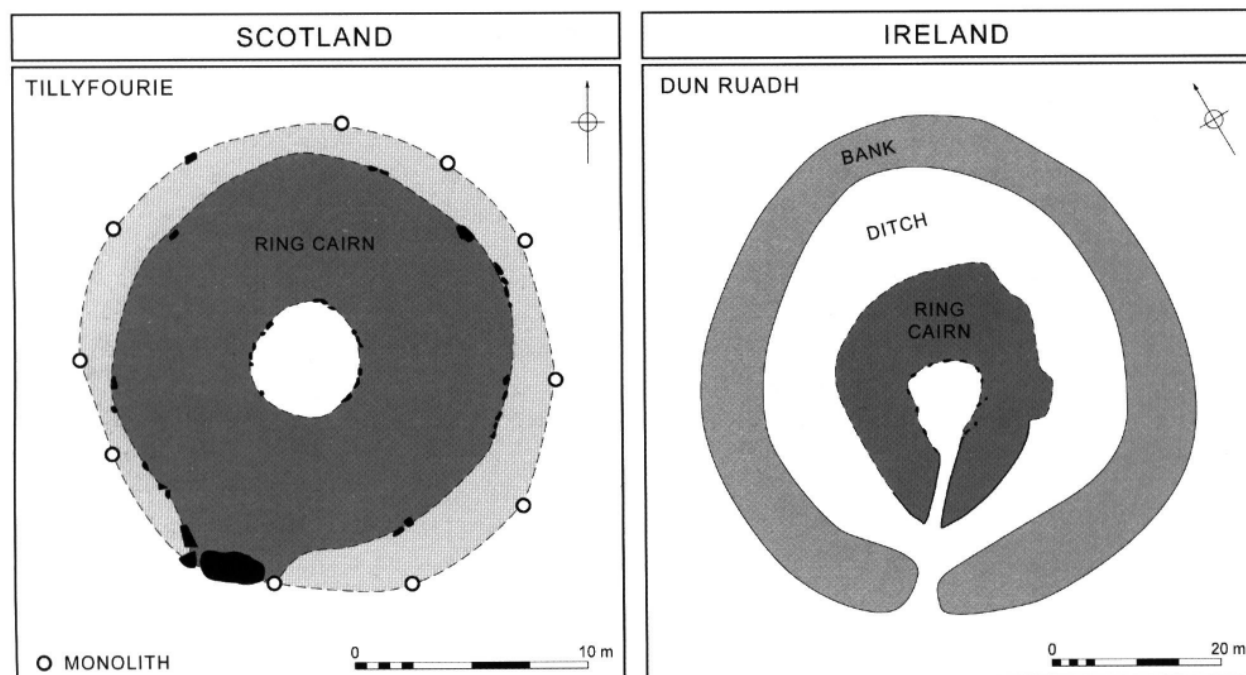


Fig. 3—Left: Ring-cairn (darker tone) enclosed by platform (light tone) and recumbent stone circle at Tillyfourie. Right: Ring-cairn enclosed by henge monument at Dun Ruadh (information from RCAHMS 2007 and Simpson *et al.* 1992).

the site was reused as a cemetery during the early Bronze Age (Barclay 2005, 86–8). A cremation burial sealed by the bank has a date of 2200–1910 BC; another from inside the monument dates from 2150–1940 BC.

This could have implications for one of the few henge monuments excavated in Ireland, Dun Ruadh in County Tyrone (Fig. 3). Like Clava Cairns and recumbent stone circles, the site can be described as a ring-cairn enclosed by a massive perimeter, but in this case that boundary is an earthwork with a single entrance to the south-west. It has been investigated on two occasions, and the more recent project concluded that it was a Neolithic henge of the kind that was already well known in Britain (Simpson *et al.* 1992). The ring-cairn inside it was associated with a number of cists containing Irish Bowls; this structure was considered to be a subsequent development. In the light of recent work in Scotland that may not be correct. The base of the ditch was associated with a radiocarbon date of 2140–1940 BC, but it was based on a bulk sample of charcoal and could have included material significantly older than the construction of the monument. In any case, that date is early Bronze Age rather than Neolithic. The bank has a *terminus ante quem* of

1880–1700 BC from a burial cut into its surface, but the grave was not associated with any pottery. When the results of the excavation were published, such estimates would not have raised a problem, for the chronology of Irish Bowls was controversial. Anna Brindley's more recent work has shown that cists were associated with this style of pottery between 2160 and 1920 BC. The vessels found with the burials at Dun Ruadh belong to the earlier stages of its evolution, narrowing the likely range to 2160–1980 BC (Brindley 2007). In the circumstances it seems just as likely that the henge enclosed an older monument, or that it was constructed around the ring-cairn whilst it was still being used as a cemetery. An even later date for an Irish henge monument comes from Tonafores, near Sligo, where the basal filling of the ditch is associated with a date of 1760–1610 BC (Danaher 2007, chapter 4).

Stone settings in north-east Scotland and south-west Ireland (Fig. 4)

The relationship between these two groups of monuments is

more complex than first appeared. Although they were not built at the same time, it is quite possible that there was a significant relationship between these architectural traditions.

The first reason for saying this is that there is considerable evidence that the recumbent stone circles of Aberdeenshire were brought back into commission during the late Bronze Age, the period in which the Irish examples were built. Nearly all the well-recorded structures in north-east Scotland are associated with pottery or cremated bone dating from the late second and early first millennia BC. The same is true of the Clava Cairns and of a few monuments on Tayside and others on the west coast. The dates for this activity extend between about 1150 and 800 BC (Bradley and Sheridan 2005). A surprisingly high proportion of the structures built in the late Neolithic or early Bronze Age were reused at this time. Many of them share some of the characteristics of monuments in Munster: they are built with monoliths that are graded by height; they face towards the south or south-west; some employ recumbent stones; and most are associated with cremation burials and possibly the sites of pyres. The important point is that by this stage they were almost a thousand years old.

Although the reuse of older structures is especially common in Scotland, there is another example of this practice at Island in County Cork (O'Kelly 1958). This is a well-known wedge tomb that, like so many others, opens towards the south-west. The excavator considered that it had been incorporated in a roughly circular mound, whose perimeter was marked by a series of stone sockets that he interpreted as the remains of a kerb. It seems just as likely that the burial chamber was surrounded by a setting of freestanding monoliths, in which case the slot at the entrance of the monument might indicate the position of a recumbent stone. More important, radiocarbon dating has shown that this setting is not contemporary with the original tomb. In fact, it was built between 1430 and 1270 BC, over 500 years after the original structure (Brindley and Lanting 1992, 20–1). That is not much earlier than the dates from other Munster stone circles (O'Brien 2004b).

At the same time, it seems possible that new kinds of monumental architecture were developing in north-east Scotland during the late Bronze Age. The evidence is very limited and comes from two recently published excavations in Aberdeenshire. The first was at Cairnwell and recorded a complex sequence of monuments (Rees 1997). Among the main elements were a circular fenced enclosure associated

with a series of cremation burials, a ring-cairn that overlay it, and a small stone circle. The excavated sequence can be construed in more than one way, but perhaps the most convincing interpretation is that the ring-cairn and the stone circle were contemporary with one another. That is important because the focal point of that cairn was a large upright slab in its kerb, which the excavator specifically compared with the recumbent in the local stone circles. As so often happened, it faced south. This cairn has a *terminus post quem* of 1400–1050 BC.

The other site was a small kerb cairn excavated by Ian Ralston on the Sands of Forvie. Again, the dominant feature of this monument was a horizontal slab that was much longer than the other kerbstones. It was located on the southern perimeter of the monument (Ralston and Sabine 2000, 35–40, figs 9 and 13, 155–6). The cairn itself was poorly preserved but had covered a cremation burial. Because it was bounded by such a substantial perimeter, Ralston compares this monument with a ring-cairn. It has a *terminus post quem* of 1000–380 BC, and charcoal associated with the cremation in the interior dates from 970–370 BC. Neither estimate is particularly precise but, taken together, they suggest that this distinctive monument dates from the late Bronze Age or early Iron Age. The important point is that it has structural features in common with older monuments in the same region, some of which were being reused at the time. That may also apply to a series of small stone settings on Tayside, including Croft Moraig, where a stone circle attributed to the late Neolithic or early Bronze Age was occupied during the late Bronze Age by a small post setting resembling a domestic building. It was probably replaced by a low cairn or platform before its position was marked by an oval setting of monoliths. They were graded in height and, unlike the older structures on that site, they faced south-west (Bradley and Sheridan 2005).

The Irish evidence is more straightforward and suggests that the stone circles in Munster were also built during the late Bronze Age. This much is clear from the radiocarbon dates for the sites at Reanascreena, Cashelkeelty and Drombeg (O'Brien 2004b). The clearest evidence comes from Reanascreena, which has a *terminus post quem* of 1260–940 BC and contains a central cremation that dates from 1000–830 BC. Although these estimates overlap with those from Scotland, it would be wrong to overestimate the connections between the two groups. Where they have features in common, this may be because their builders shared certain ideas, and in any case their architectural

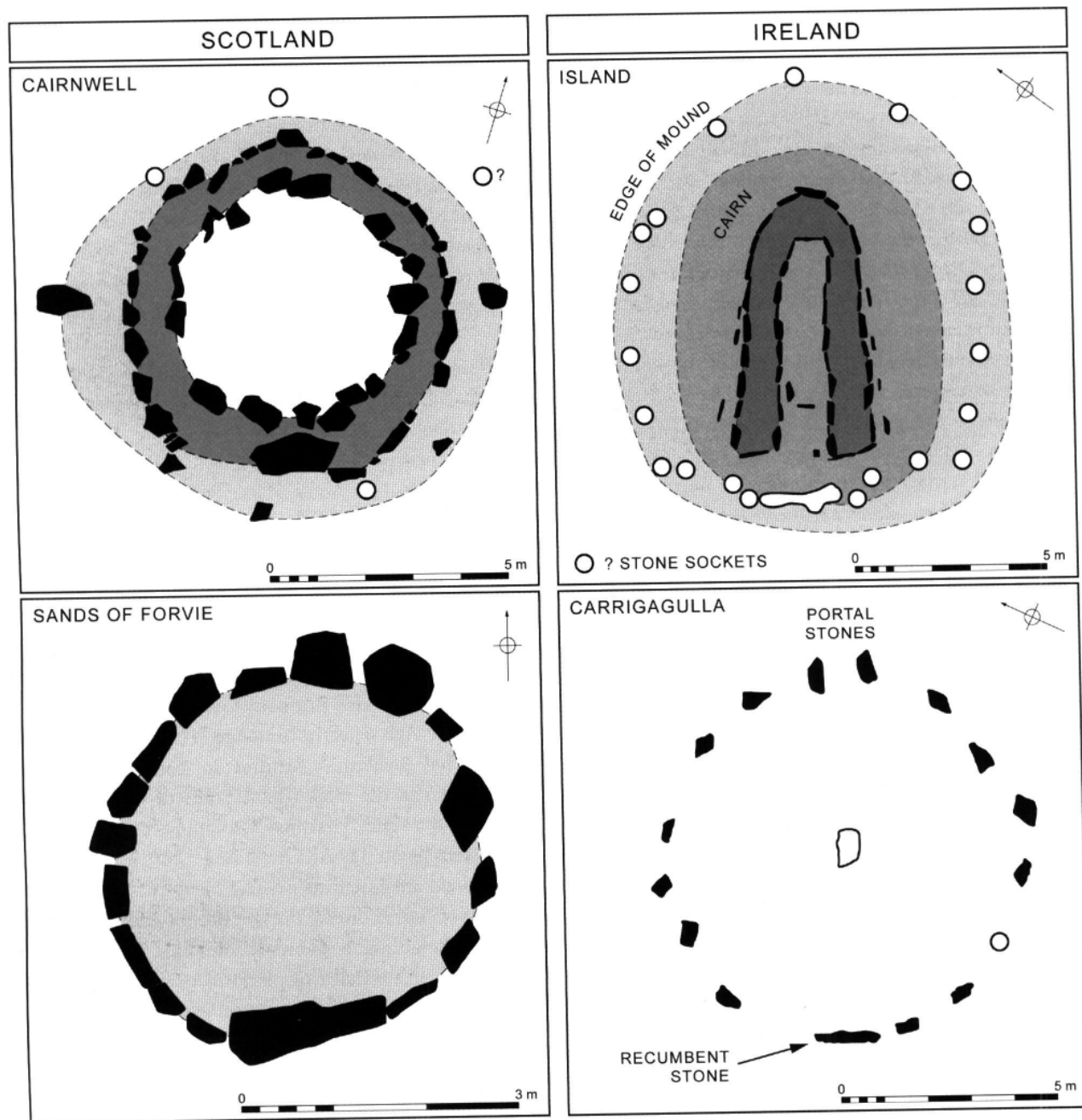


Fig. 4—Top row: Ring-cairn (darker tone) enclosed by platform (lighter tone) and stone circle at Cairnwell; and wedge tomb enclosed by mound and possible stone setting at Island. Bottom row: Kerb cairn on the Sands of Forvie; and recumbent stone circle at Carrigagulla (information from Rees 1997, O'Kelly 1958, Ralston and Sabine 2000 and Burl 2000).

features could have been inspired by those of older monuments, some of which were being reused at the time: in Ireland they were wedge tombs with their south-westerly alignments, and in Scotland those buildings were recumbent stone circles. There is no need to postulate direct links

between Munster and Aberdeenshire, for these may simply be regions where widely shared ideas were expressed in a particularly visible form. What this evidence does show is that the practice of building stone circles and related monuments lasted for longer than is commonly supposed.

Scottish henges and Irish ring-barrows (Fig. 5)

This paper has discussed some of the connections that have been suggested between Bronze Age monuments in Ireland and Scotland. It has reviewed a number of the links that have been postulated in the past and has suggested others. There is one comparison that has not been considered so far, because the monuments concerned have been assigned to different categories. In Scotland they are described as henges or 'hengiforms', and in Ireland they are classed as ring-barrows.

That statement needs some qualification. Scottish henges form a very broad category and come in a wide range of sizes, from massive earthworks to enclosures that are only 10m in diameter (Barclay 2005). Their chronology is equally diverse. The oldest monuments may have been built about 3000 BC, but, as we shall see, the latest may extend into the late Bronze Age. In the same way, there are a number of different definitions of Irish ring-barrows, some of which admit more earthworks to that category than others (Newman 1997, 153–5). This paper takes a rather narrow view of these earthworks and is only concerned with small circular enclosures with an external bank and an internal ditch (Raftery 1994, 188–99; Waddell 1998, 365–8). For the most part they have a single entrance.

With these qualifications, the smallest Scottish henges share certain characteristics in common with Irish ring-barrows. Their earthworks are disproportionately broad in relation to the area that they enclose, which is extremely restricted. Although they are sometimes characterised as enclosed mounds or platforms, the interior can be entirely level and no trace of those features is found in excavation. Sometimes the entrance has a step in the middle of the causeway, as if access to the interior was partly blocked. In both countries the smallest examples are approximately the same size as later prehistoric round houses.

Some of the Scottish examples have been surveyed, but hardly any examples have been excavated. That is unfortunate, for a number of these sites are of similar proportions to the stone monuments already considered in this paper. For example, a small henge in Lagnagreisach Wood not far from Balnuaran of Clava is the same size as two of the ring-cairns in that cemetery. It also shares the south-westerly alignment of the other monuments. It raises the possibility that these small earthworks might be the equivalent of some of the stone-built monuments studied in recent years.

O'Brien (2004b) has made a similar point. In County Cork the distribution of ring-barrows complements that of small stone circles, and he suggests that the two groups of monuments may have been contemporary with one another and could have been used in similar ways. Irish ring-barrows seem to have had an extended history, from the early Bronze Age to the Iron Age. In most cases they can be dated because they are associated with cremation burials. One of these earthworks enclosed the stone circle at Reanascreena discussed in the previous section of this paper. More monumental structures of this type are also associated with the royal centres of the late first millennium BC. They are discussed in detail by Barry Raftery in *Pagan Celtic Ireland* (1994, 64–83).

There is hardly any dating evidence from Scotland, but a typical example of this type of monument was excavated in 2008 at Pullyhour in Caithness (fieldwork by the writer and Hugo Lamdin Whymark). The first enclosure on the site has a *terminus post quem* of 1620–1450 BC. It was rebuilt in a second phase that has a *terminus post quem* of 1320–1120 BC. A similar earthwork was recorded during road construction at Lairg in Sutherland (Rod MacCullagh, pers. comm.). A charcoal sample from under its bank provides a *terminus post quem* of 1350–1050 BC, whilst a cremation found in the centre of the enclosure dates from 1180–930 BC. Both estimates overlap with those for late Bronze Age activity at Scottish stone circles and ring-cairns. There is a further complication, for the small monument at Lairg must have been reused in the Iron Age, as a post-hole associated with its entrance returned a date of 500–250 BC. The dating evidence from Pullyhour and Lairg suggests that the latest Scottish 'hengens' could have been the local counterparts of the Irish ring-barrows.

Unresolved questions

This paper has probably raised as many questions as it has answered, but that is how research maintains its vitality. Two important questions certainly remain and need to be resolved in the future.

The first is whether the patterns discussed here extended outside Scotland and Ireland. The evidence is by no means clear, but at present a similar process of reinvention and reuse does seem to be represented in Wales and northern England, whilst it is much less frequent in the south (Bradley 2007, 198, 200). Is that a true reflection of what happened in the

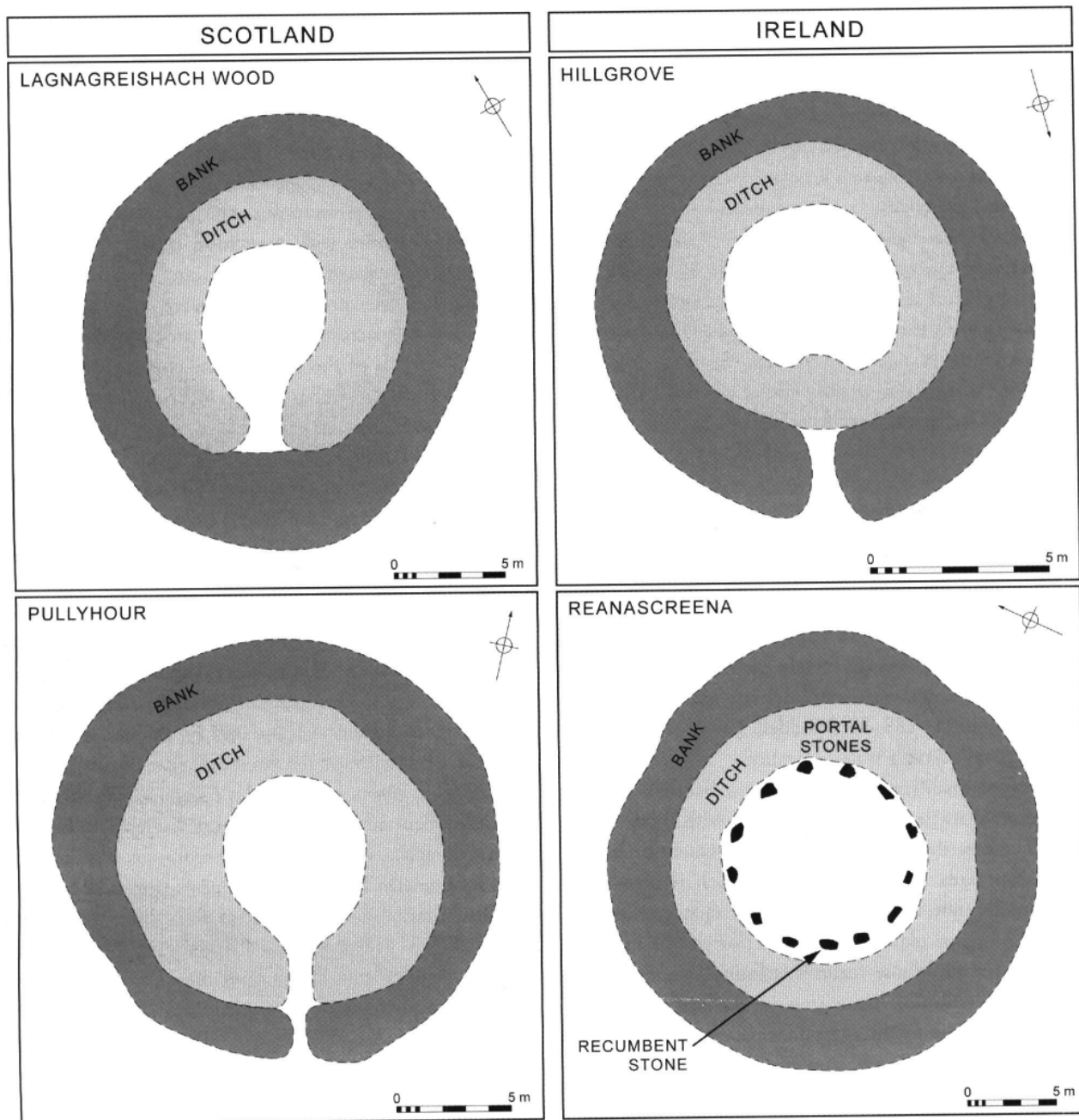


Fig. 5—*Left*: Small Scottish henge monuments at Lagnagreisach Wood and Pullyhour. *Right*: Ring-barrow at Hillgrove, and enclosed stone circle at Reanascreena (information from unpublished surveys by Ronnie Scott, Annette Jack, Hugo Lamdin Whymark and the writer; and from O'Sullivan and Sheehan 1996 and Fahy 1962).

prehistoric period, or have middle and late Bronze Age 'ritual' monuments been overlooked because they were not expected to occur? Is it possible that they have already been found but, like some of the examples discussed here, have been dated to the wrong periods? At present these questions remain open.

At the same time, more dating evidence is required even in Ireland and Scotland. The arguments put forward here depend on a relatively small number of radiocarbon dates and on the reassessment of a limited body of artefacts. They are not sufficient to show whether there was a continuous tradition of building stone circles and henges extending from

the late Neolithic period to the late Bronze Age, or whether one sequence extended down to roughly 1700 BC and another might have started several centuries later. The difference is very important and the question requires further research.

What is not in question is that geographically extensive studies of this kind still have a contribution to make in contemporary archaeology, and that Irish archaeology and British archaeology need to be pursued in tandem if the information that they provide is to be seen in its true chronological and geographical contexts. Whatever the merits of these particular arguments, it is a lesson that Barry's work teaches anyone concerned with the prehistory of these islands.

Acknowledgements

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References

- Barclay, G. 2005 The 'henge' and 'hengiform' in Scotland. In V. Cummings and A. Pannett (eds), *Set in stone. New approaches to Neolithic monuments in Scotland*, 81–94. Oxford. Oxbow.
- Bradley, R. 2000 *The good stones. A new investigation of the Clava Cairns*. Edinburgh. Society of Antiquaries of Scotland.
- Bradley, R. 2005 *The moon and the bonfire. An investigation of three stone circles in north-east Scotland*. Edinburgh. Society of Antiquaries of Scotland.
- Bradley, R. 2007 *The prehistory of Britain and Ireland*. Cambridge University Press.
- Bradley, R. and Clarke, A. 2008 Broomend of Crichtie revisited. *Scottish Archaeology News* 56, 3.
- Bradley, R. and Sheridan, A. 2005 Croft Moraig and the chronology of stone circles. *Proceedings of the Prehistoric Society* 71, 269–81.
- Branigan, K. 1997 Barra. *Current Archaeology* 152, 284–9.
- Branigan, K. and Foster, P. 1995 *Barra: archaeological research on Ben Tangaval*. Sheffield Academic Press.
- Brindley, A. 2007 *The dating of Food Vessels and Urns in Ireland*. Department of Archaeology, National University of Ireland, Galway.
- Brindley, A. and Lanting, J. 1992 Radiocarbon dates from wedge tombs. *Journal of Irish Archaeology* 6, 19–26.
- Burl, A. 2000 *The stone circles of Britain, Ireland and Brittany*. New Haven. Yale University Press.
- Cooney, G. 2006 Newgrange—a view from the platform. *Antiquity* 80, 697–708.
- Danaher, E. 2007 *Monumental beginnings. The archaeology of the N4 Sligo Inner Relief Road*. Dublin. National Roads Authority.
- Davies, O. 1939 Excavations at Clogherny. *Ulster Journal of Archaeology* 2, 36–43.
- Fahy, E. 1959 A recumbent stone circle at Drombeg, Co. Cork. *Journal of the Cork Historical and Archaeological Society* 64, 1–27.
- Fahy, E. 1962 A recumbent stone circle at Reanascreena, Co. Cork. *Journal of the Cork Historical and Archaeological Society* 67, 59–69.
- Gibson, A. 2004 Round in circles. Timber circles, henges and stone circles. Some possible relationships and transformations. In R. Cleal and J. Pollard (eds), *Monuments and material culture*, 70–81. East Knoyle. Hobnob Press.
- Henshall, A. 1963 *The chambered tombs of Scotland, volume 1*. Edinburgh University Press.
- Henshall, A. and Ritchie, J.N.G. 2001 *The chambered cairns of the central Highlands*. Edinburgh University Press.
- Needham, S. 2004 Migdale-Marnoch. Sunburst of Scottish metallurgy. In I. Shepherd and G. Barclay (eds), *Scotland in ancient Europe*, 217–45. Edinburgh. Society of Antiquaries of Scotland.
- Newman, C. 1997 *Tara. An archaeological survey*. Dublin. Royal Irish Academy.
- O'Brien, W. 1999 *Sacred ground. Megalithic tombs in coastal south-west Ireland*. Department of Archaeology, National University of Ireland, Galway.
- O'Brien, W. 2002 Megaliths in a mythologized landscape: south-west Ireland in the Iron Age. In C. Scarre (ed.), *Monuments and landscape in Atlantic Europe*, 152–76. London. Routledge.
- O'Brien, W. 2004a *Ross Island. Mining, metal and society in early Ireland*. Department of Archaeology, National University of Ireland, Galway.
- O'Brien, W. 2004b (Con)fusion of tradition? The circle

- henge in Ireland. In A. Gibson and A. Sheridan (eds), *Sickles and circles. Britain and Ireland in the time of Stonehenge*, 323–38. Stroud. Tempus.
- O'Kelly, M. 1958 A wedge-shaped gallery grave at Island, Co. Cork. *Journal of the Royal Society of Antiquaries of Ireland* 88, 1–23.
- O'Kelly, M. 1982 *Newgrange. Archaeology, art and legend*. London. Thames and Hudson.
- O'Sullivan, A. and Sheehan, J. 1996 *The Iveragh Peninsula. An archaeological survey of South Kerry*. Cork University Press.
- O'Sullivan, M. 2005 *Duma na nGiall, Tara. The Mound of the Hostages*. Bray. Wordwell.
- Raftery, B. 1994 *Pagan Celtic Ireland*. London. Thames and Hudson.
- Ralston, I. and Sabine, K. 2000 *Excavations of second and first millennia BC remains on the Sands of Forvie, Slains, Aberdeenshire*. University of Aberdeen Department of Geography and Environment.
- Rees, T. 1997 The excavation of Cairnwell ring-cairn, Porthleven, Aberdeenshire. *Proceedings of the Society of Antiquaries of Scotland* 127, 255–79.
- Royal Commission on the Ancient and Historical Monuments of Scotland 2007 *In the shadow of Benachree. A field archaeology of Donside, Aberdeenshire*. Edinburgh. Society of Antiquaries of Scotland.
- Schulting, R., Sheridan, A., Clarke, S. and Bronk Ramsey, C. (eds) 2008 Lurganlea and the dating of Irish wedge tombs. *Journal of Irish Archaeology* 17, 1–17.
- Simpson, D. 1967 Excavations at Kintraw. *Proceedings of the Society of Antiquaries of Scotland* 99, 54–9.
- Simpson, D., Weir, D. and Wilkinson, J. 1992 Excavations at Dun Ruadh, Crouck, Co. Tyrone. *Ulster Journal of Archaeology* 55, 36–47.
- Stout, G. and Stout, M. 2008 *Newgrange*. Cork University Press.
- Sweetman, D. 1985 A Late Neolithic/Early Bronze Age pit circle at Newgrange, Co. Meath. *Proceedings of the Royal Irish Academy* 81C, 195–221.
- Waddell, J. 1998 *The prehistoric archaeology of Ireland*. Galway University Press.
- Walsh, P. 1995 Structure and deposition in Irish wedge tombs: an open and shut case? In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age*, 113–27. Dublin. Stationery Office.

To be, or not to be, a Celt. Does it really matter?

John Collis

Introduction

When I gave a course on the Celts and on the British Iron Age to students in Vienna in January 1996, I thought I would start by shocking them, saying that there was no ancient historical evidence for Celts in Britain and Ireland. It did not produce the impact I had expected. It emerged that this was not something new to them, but that Barry Raftery had been there a few weeks earlier saying much the same thing. At that time he admitted that he could say this outside Ireland, but it was a heresy that was perhaps not repeatable at home! A decade later, in 2007, at the retirement conference for Christian Goudineau at the Collège de France (see Raftery 2006), he surveyed the assembled scholars gathered from all over Europe to discuss the Celts and Gauls, and claimed that he was the only Celt there! Despite the contradictory appearance of these two statements, I would agree with him on both counts: there is indeed no written evidence for ancient Celts in either Britain or Ireland, so no reason that their ancient inhabitants should be called Celtic; equally, if we accept one common definition of ethnicity, that 'people are what they think they are', then the modern Irish are Celts.

As Patrick Sims-Williams has noted, a lot of ink has been spilt over Celtic identity in recent years (1998a; 1998b). This is not, as has been claimed by the Megaws (Megaw and Megaw 1996), any anti-Celtic sentiment on the part of English archaeologists such as myself, but rather a genuine academic concern at the way in which the 'Celtic paradigm' was being misused in the interpretation of the archaeological record—Barry Raftery's 'magic Celtic bag' from which anything can be drawn. In the period after the Second World War it was the *Germani* who had come under considerable scrutiny after the way an ethnic, indeed racial, paradigm had been abused by the Nazis (e.g. Eggers 1959). But, though the methodologies that were used in Germanic and Celtic archaeology were much the same, the latter was not subjected to the same critique.

The origins of the Anglo-Saxons

The Anglo-Saxons and their archaeological manifestation have only recently started to be explored more critically, but in this case the 'invention' of English identity is historically simpler—though, as an 'Englishman' whose home town is Winchester, the capital of the West Saxons who, under Alfred and his successors, established what we now call England, I used to wonder why it became 'Anglia' rather than 'Saxonia'. Sarah Foot (1996) has argued that it was a deliberate political decision by King Alfred to use the word *Anglecynn* as a means of unifying the Angles, Saxons, Jutes, Frisians and, later, Danes into one ethnic group, using the one major historical study of post-Roman Germanic settlement, Bede's *Ecclesiastical history of the English nation*. One still wonders, however, why the Scots ignored their Anglian neighbours and term the English *Sassenachs*. But, like the Celts (Figs 1 and 2), the Saxons too have suffered from geographical shifts.

The Saxons first appear in Ptolemy in the second century AD (Capelle 1998), when they occupy an area just to the north of the Elbe, at the southern end of the Jutland peninsula (Fig. 3). This is followed by their physical expansion into southern England (Hills 2003), where East, West, South and Middle Saxons are still recalled in country and regional names: Essex, Wessex, Sussex and Middlesex. By the ninth century Saxony had expanded south of the Elbe to form the duchy of Saxony (Fig. 4), while in England, under Alfred and his successors, Wessex was expanding its control over all of modern England, and also parts of what is now Scotland. The modern administrative map of Germany now includes three Saxon *Länder* with the River Elbe forming the central spinal chord—Niedersachsen, Sachsen Anhalt and Sachsen—but, interestingly, this does not include the original homeland of the Saxons, which lies in Schleswig Holstein (Fig. 5). In England three counties still reflect former Saxon kingdoms—Essex, Sussex and Middlesex—but the dominant kingdom of the West Saxons, Wessex, no longer forms an administrative entity, though it is still a popular name for commercial businesses, cultural activities and, in literature, the setting of the novels of

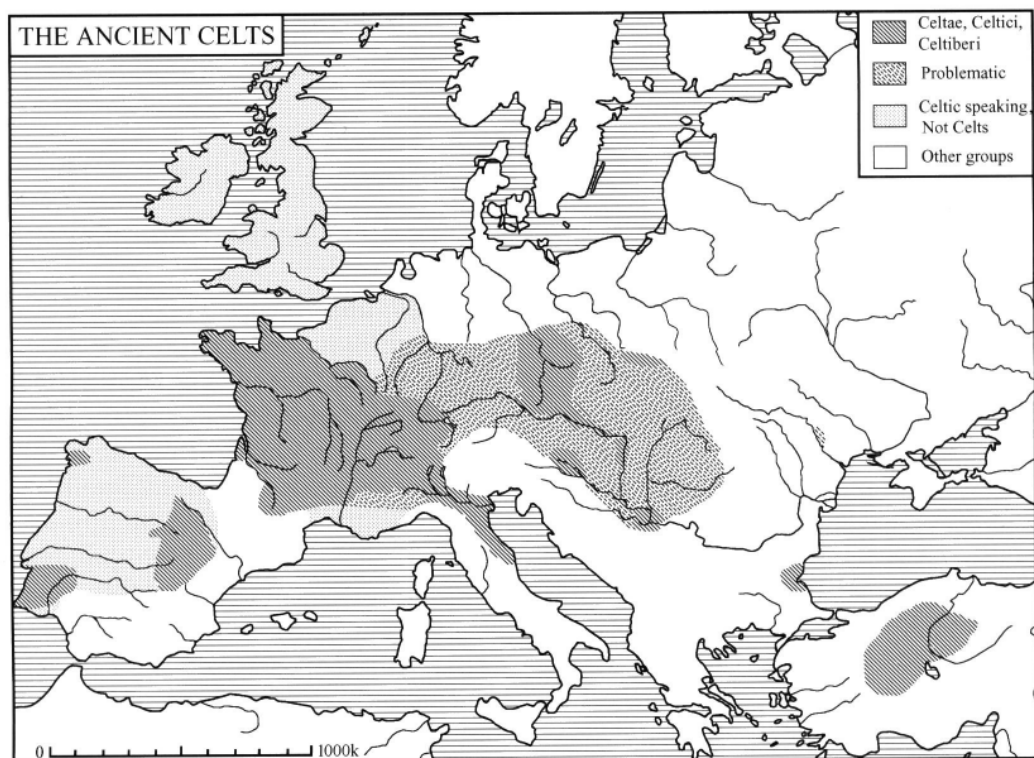


Fig. 1—The distribution of the ancient (or primary) Celts based on the classical sources (from Collis 2003).

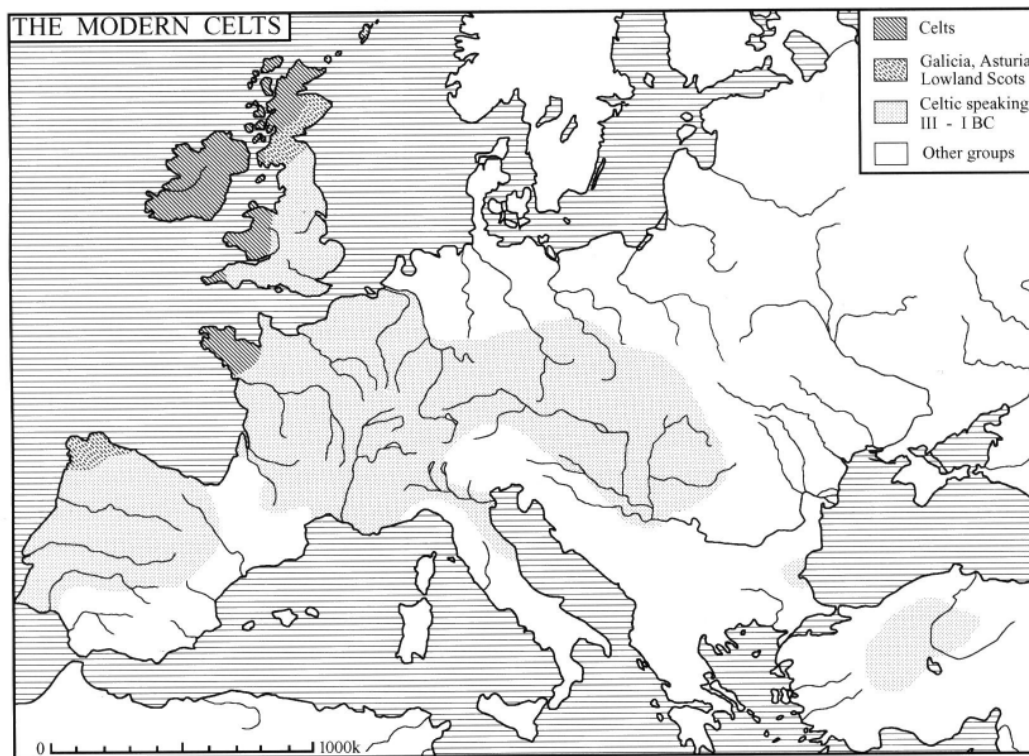


Fig. 2—The distribution of the modern (or secondary) Celts (from Collis 2003).

Thomas Hardy. In modern times the 'Anglo-Saxon world' encompasses England and areas colonised by the English, such as the United States and Canada, and for some also Australia and New Zealand, and more problematically South Africa, Scotland and Ireland, according to the context in which the term is used, but it specifically excludes the original homeland in Germany.

Ancient and modern Celts

The process by which the ancient Celts gave birth to the modern Celts is now fairly well documented, from the first claims in the sixteenth century that the original colonists of Britain and Ireland were of Celtic origin to the scholarly and popular claims of the later eighteenth century that the Irish, Welsh, Scots and Bretons have a shared Celtic ethnicity (James 1999; Collis 2003; Morse 2005). What is still not clear is *why*, especially as this occurred at the same time that the English, Welsh and Scots were accepting a common 'British' identity, based, according to Linda Colley (1992), on a shared anti-Catholic and anti-French sentiment. Celtic identity cross-cuts this to include Welsh, Irish, Scots and French Bretons, with Catholics and various brands of Protestantism, based on a largely academic definition that

they shared a common language, as recognised by Buchanan (1582) and Lhuyd (1707), even though these languages were not necessarily mutually intelligible. I have argued (Collis 2007; forthcoming a) that there is no single explanation that is satisfactory, such as a common cause by peoples on the 'periphery' against the centralised states of England and France, or a core-periphery relationship in economic terms owing to the Industrial Revolution, or a common culture (the four main groups are culturally very different), or a shared desire to invent an ancestry that could be linked into the written histories provided by the Bible and the classical sources. One can understand the nationalistic forces that might engender local identities—Welsh, Irish, Scots, Breton—but why a shared Celtic identity when, despite the romantic aura surrounding the Ossian poems, the new 'Celts', especially the Irish and the Scottish Highlanders, were dismissed by many as uncivilised savages?

So, why have the 'Celtosceptics' been so vociferous in their attacks on 'Celtic' Britain? We have to call the Iron Age inhabitants something, and any name we use carries a certain amount of baggage, be it a cultural term like 'Marnian' or 'Woodbury Culture', or an ethnic term like 'Belgic', or even a purely chronological term like 'Iron Age'. Perhaps terms used by contemporary societies such as



Fig. 3—The approximate location of the Saxons in the second century AD, based on Ptolemy (after Capelle 1998), and the areas of initial Saxon colonisation in Britain in the fifth century AD.

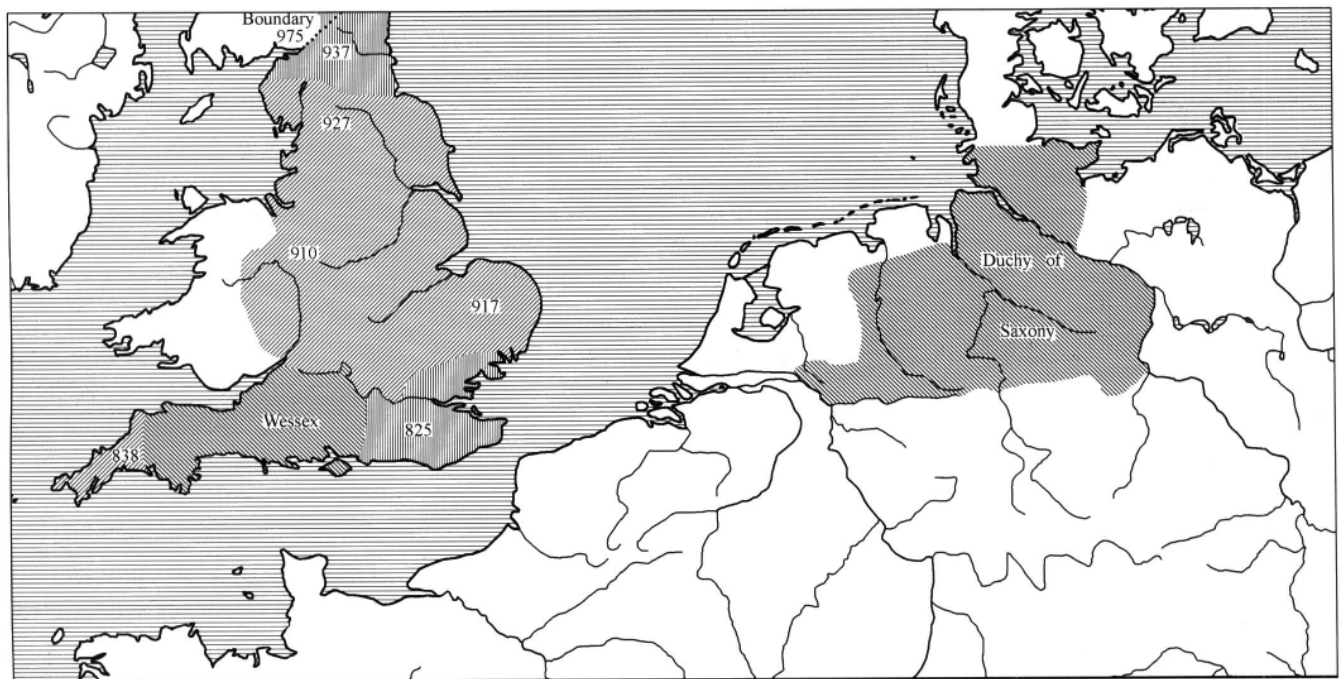


Fig. 4—The duchy of Saxony (after Capelle 1998), and a simplified version of the expansion of the kingdom of the West Saxons in Britain in the eighth–ninth century AD.

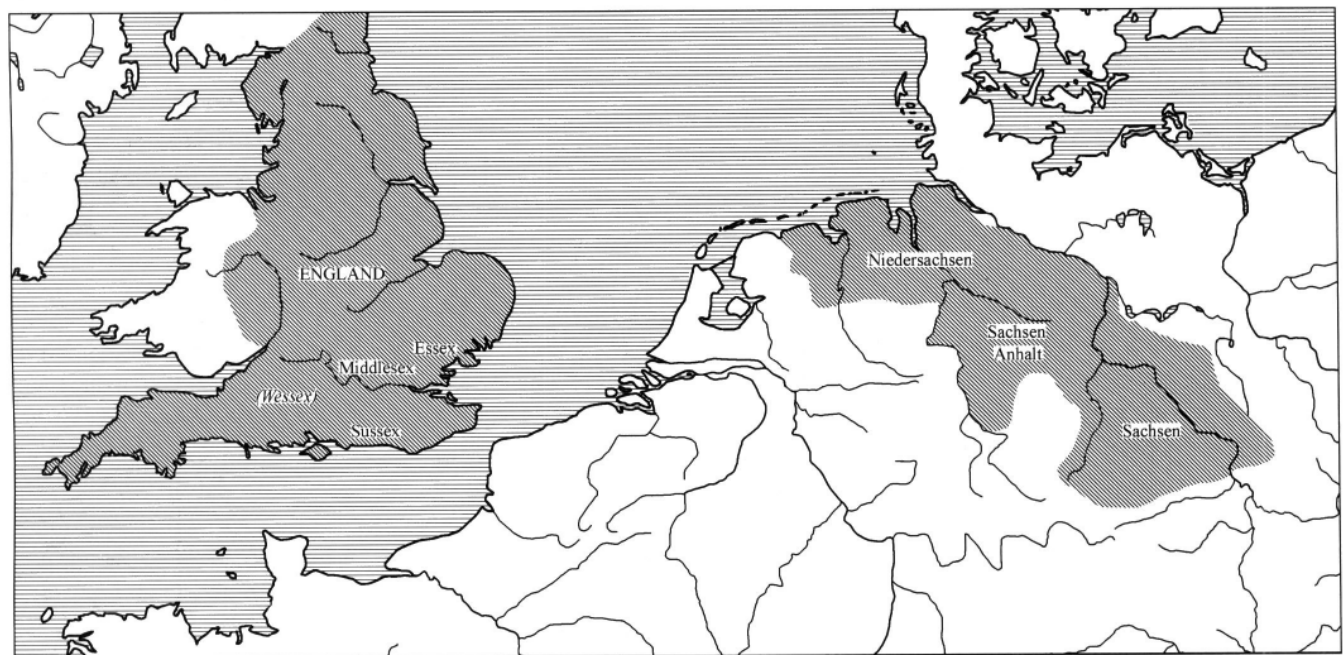


Fig. 5—Modern administrative areas in Germany and in Britain named after the Saxons.

'Britons' or 'Hibernians' are the least emotive as they are essentially geographical, though one wonders what meaning, if any, these terms would have had to the people themselves. There is also a problem about how far back in time one can push such terms, given the immense changes that happened throughout prehistory in our islands, and equally it masks the very varied nature of the Iron Age communities that existed at any one moment in time.

The difficulty with the term 'Celtic' is that it carries too much baggage, and has in the past led to gross misinterpretations of our history and of the archaeological record (e.g. Cunliffe 1983; cf. Collis 1994). In origin it seems to have been an ethnic term, and by the sixth–fifth century BC it was already widespread across Europe, from central Spain (the Celtiberians) to central and western France, possibly southern Germany, and parts of the Czech Republic (Bohemia, home, later at least, to the Boii). By the fourth and third centuries BC it had spread to northern Italy and central Asia Minor. But where the term originated is obscure; perhaps central southern France seems the most likely central area for dispersal, and this area is specifically linked by the ancient sources to the invasions of Italy, Greece and Asia Minor (e.g. the Bituriges and the Volcae Tectosages). How these ancient Celts were defined is unknown; certainly it was not the language, as is used to define the modern Celts, since we know of Ligurians, Germani and Belgae who also spoke Celtic languages. But we need to know where terms like Celtic languages and Celtic art come from. Though we encounter references to Celtic languages in the ancient world (*celtice*, *squama celtici sermonis*), these refer to the language spoken by the ethnic Celts, not a language group as nowadays. This language classification is something which starts with Buchanan in the sixteenth century (1582; Collis 1999), and becomes more scientifically based with Edward Lhuyd (1707) at the beginning of the eighteenth century, though their place in the Indo-European language group was not defined until the nineteenth century with authors such as Prichard (1831), Bopp (1838) and Zeuss (1853). Celtic art is a mid-nineteenth-century concept, starting with John Kemble's lecture to the Royal Irish Academy in 1854 (Kemble *et al.* 1863) and Obadiah Westwood in Owen Jones's *The grammar of ornament*, published in 1856 (my thanks to John Roberts for this reference). But both these terms are based on misconceptions, starting with the Abbé Pezron's mistaken belief that the Breton language was a direct descendant of the language spoken by Caesar's *Celtae*, and that it had

spread from Brittany to Britain (Pezron 1703; Jones 1705; Collis 2003, 49–50), rather than vice versa, as modern linguists would argue. From this it was then argued that the languages spoken by these supposed Celts were therefore 'Celtic' languages, that Britons and Irish who spoke these languages were therefore Celtic, and so their art could also be termed Celtic, a whole series of *non sequiturs* and correlations which we can no longer accept today. Other terms, such as the Celtic church, Celtic fields and Celtic music, are of even more recent origin but based on the same false reasoning.

Moving beyond the Celts

If we accept the classical sources at their face value, that the ancient inhabitants of Britain were not Celts, we immediately solve one often-posed question, 'When did the Celts arrive?' The answer is simple: they didn't. It means that we also avoid the methodological pitfalls of the past, which equate speaking a Celtic language or La Tène art with the ethnic Celts. Instead we change the questions to when, and how, did the language or the art arrive. It immediately frees us to look at other mechanisms for the transmission of cultural and technological changes, and no longer need we assume that they form part of a package of criteria that must be treated together.

This leads us on to the more general problems of the false and unacceptable theoretical approaches and methodologies that have been applied to the identification of the Celts and their expansion. As I have tried to demonstrate by looking at the historiography of Celtic Studies, these are often based on racial concepts from the nineteenth and early twentieth centuries that are simply unacceptable today for theoretical and factual reasons. Thus the supposed area of 'origin' of the Celts in southern Germany is largely based on Déchelette's assumption (1914) that the 'Celtic' burial rite was extended inhumation, and so one could use the distribution of extended inhumation in Hallstatt I and II to define the homeland of the Celts, linking this with Henri d'Arbois de Jubainville's suggestion (1903) of the origin of the Celtic languages on the evidence of toponyms such as river names (Collis 2004). This picks out southern Germany as one of the areas of Celtic origins, though the evidence for ethnic Celts there is very thin (Fig. 1). First, there is the ambiguous statement about the origin of the Danube lying in the territory of the Celts, which

could equally well refer to south-western France owing to the geographical misconceptions of the Greeks in the fifth and fourth centuries (Hind 1972); second, we have Caesar's vague statements about Helvetii and Volcae Tectosages east of the Rhine. Some areas within the supposed area of origin were never mentioned as being Celtic by any author; the Mosel valley with its La Tène 'Hunsrück-Eifel Culture' was occupied in the first century BC by the Treveri, who, according to Tacitus, thought of themselves as Germani, even though they spoke a 'Celtic' language, yet this region is often cited as the main area of origin of Celtic art and of the Celts themselves.

Archaeologically the Celts are supposed to equate with a 'Westhallstattkultur' and a 'La Tène culture'. Even if we can define a 'Hallstatt' or 'La Tène culture', which I doubt, correlating them with linguistic or ethnic groups is dubious methodology. The concept of 'culture groups' is also too coarse for understanding the distribution of individual aspects of material culture. Thus, if we consider extended inhumations, these extend from central France to the Hungarian Plain; 'Hallstatt' painted pottery is found from Slovakia and southern Poland to western France, southern England and central Spain, and Hallstatt C swords from Ireland to Moravia and Austria and from southern France to Scandinavia. Even in these areas the distribution may be very patchy, owing usually to very localised processes of deposition in sanctuaries, rivers, burials and hoards, and we must avoid the simplistic interpretations of distribution maps, as scholars such as Eggers (1959) pointed out many years ago, a warning rarely heeded in considering the origin and spread of the Celts.

Even more problematic are concepts like Celtic religion and Celtic society. The archaeological record shows that there was considerable evolution in religious practices during the Iron Age, of which the establishment of the Gallic sanctuaries is only the most visible manifestation. It has to be seen as part of a formalisation of religious practice which also pervaded the Greek-, Etruscan-, Italic- and Iberian-speaking worlds. Unfortunately we still have not escaped from the stereotypical images of druids and their supposedly bloodthirsty sacrificial acts (human sacrifice certainly took place, but how 'druidical' it was is open to doubt). We also continue to see the sanctuaries of the Ligurians subsumed under 'Celtic religion' even though the role of religion within their society seems to have been very different from what we find, for instance, in central Gaul, and seems to have been connected more with heroes than

with localised or universal gods. The idea of a 'Celtic society' is even more problematic and, from all the evidence we have, Celtic-speaking societies varied enormously, geographically and temporally (Collis 1994).

I hope, therefore, that we are breaking the traditional chains that bind together Celtic languages, ethnic Celts and a Celtic 'Culture Group' such as the supposed 'Western Hallstatt Culture' or the 'La Tène Culture'. This is not to say that there is no relationship; the distribution of Late Tène art has a not-dissimilar distribution to Celtic languages, but it is not a one-to-one relationship. La Tène art turns up in some Germanic-speaking groups, such as in Denmark (Kaul 1991), and in Iberian-speaking areas such as southern France (Schwaller 1991) and north-eastern Spain (Quesada Sanz 2005). Equally, it is unknown or rare in the Celtic-speaking areas of Spain.

Thinking culturally

I prefer to think of 'culture' in a more anthropological sense: the process by which ideologies and ways of thinking and living are transferred from one person to another, spreading from one community to another in a reciprocal way, or in a more linear way from one generation to the next. If we can break down the linkage between one cultural trait and others, we can, as I have suggested recently, perhaps think in terms of a hierarchy of conservatism (Collis, forthcoming b). The most conservative is physical rather than cultural, in the form of the genes that one generation passes on to the next, though it is affected by cultural choices such as between endogamy and exogamy, or by choosing to stay or to move elsewhere in the form of individual or group migration; I personally chose to marry a Norwegian rather than the girl next door or through a marriage arranged by my family. Geneticists are suggesting that an important part of the genetic make-up of the populations in Ireland and Britain was established with the original colonisation at the end of the Ice Age (Sykes 2006; Oppenheimer 2006). It means that the population may have undergone at least two or three changes of language during the last 10,000 years (genetically the Irish are closely linked to the Basques, who, as is well known, speak a non-Indo-European language).

Ethnicity is perhaps more conservative than language. Despite the massive shift in the maternal language of Ireland in the nineteenth century from Irish to English, the Irish are still Irish. Speaking different dialects of Serbo-Croat did not

prevent different groups in the former Yugoslavia from trying to annihilate one another. And, as Oscar Wilde famously put it, the Americans and the English are two nations divided by a common language. Aspects such as religious belief or social structure are perhaps more volatile, and, though capable of evolving slowly over considerable periods of time, can also shift very fast, for instance as happened in Ireland with the adoption of Christianity. But the most volatile of all are the primary data that archaeologists use: material culture. Sites and fashions can go through several stages of change even within the lifetime of an individual.

The picture of society that I am trying to evoke is like many grains of sand, which may be shaken this way and that to move in any direction, while sometimes a strong wind may blow, forcing many grains to move in one direction. Each grain of sand (each human being) will be carrying knowledge and ideas with them, producing a continuously moving pattern of ideas going in many different directions. This could influence the way, for instance, that La Tène art was introduced into Ireland, and rather than necessarily seeing all influences having to be channelled through Britain, some may come directly from various areas of the Continent, as Barry Raftery has argued for many years.

Thus, I hope it is clear from what I have written that the conflict is not so much over the nomenclature as over the ideas, methodology and interpretation that it can engender. In theory the term 'Celtic' can be used without its necessarily channelling the way in which we think of the past. But I fear that in practice this is not so, and I would argue that, as it has no basis in history, it is better simply to drop it, and to use less emotive language such as geographical terms like British, Irish or Hibernian. It will lead to rather different attitudes: for instance, we can no longer think of the Celts as a race or people who have been slowly driven out of central and western Europe until they are left hanging on to the Atlantic coastal areas; rather it is the language that has been subject to contraction. Celtic Studies is the subject that deals with the Celtic-speaking peoples past and present, and is an interesting forum where we can compare language, ethnicity and various aspects of culture in new ways. Celtoscepticism is not something anti-Celtic, as it is often portrayed, but a new and exciting way of looking at the past, liberated from false methodologies and stereotyping of the past using outdated concepts.

References

- Bopp, F. 1838 Über die celtischen Sprachen vom Gesichtspunkt vergleichenden Sprachformen. *Abhandlungen der Königlich Preussischen Akademie der Wissenschaft, Philosophisch-Historische Klasse* (1838), 187–292.
- Buchanan, G. 1582 *Rerum Scoticarum historia*. Edinburgh. Alexander Arbuthnet.
- Capelle, T. 1998 *Die Sachsen des frühen Mittelalters*. Stuttgart. Theiss.
- Colley, L. 1992 *Britons: forging the nation, 1707–1837*. Newhaven and London. Yale University Press.
- Collis, J.R. 1994 Reconstructing Iron Age society. In K. Kristiansen and J. Jørgensen (eds), *Europe in the first millennium BC*, 31–9. Sheffield. J. R. Collis Publications.
- Collis, J.R. 1999 George Buchanan and the Celts of Britain. In R. Black, W. Gillies and R. Ó Maolalagh (eds), *Celtic connections, Vol. 1. Proceedings of the Tenth International Congress of Celtic Studies*, 91–107. East Linton. Tuckwell Press.
- Collis, J.R. 2003 *The Celts: origins, myths and inventions*. Stroud. Tempus. (Reprinted with corrections and additions in 2006.)
- Collis, J.R. 2004 D'Amédée Thierry à Joseph Déchelette: hypothèses du XIX^e siècle sur l'arrivée des Celtes en Gaule. In B. Mandy and A. de Saulce (eds), *Les Marges de l'Armorique à l'âge du Fer. Archéologie et histoire; culture matérielle et sources écrites. Actes du XXIII^e Colloque de l'AFEAF, Nantes, mai 1999*, 363–8. *Revue Archéologique de l'Ouest*, Supplément no. 10.
- Collis, J.R. 2007 Die Entwicklung des Kelten-Konzepts in Britannien während des 18. Jahrhunderts. In H. Birkhan (ed.), *Kelten-Einfälle an der Donau. Symposium Deutschsprachiger Keltologinnen und Keltologen, Linz 2005*, 111–26. Vienna. Österreichischen Akademie der Wissenschaften.
- Collis, J.R. (forthcoming a) The development of the concept of the Celts during the 18th century. In *Them and Us*, proceedings of a conference held in Melbourne, 2006.
- Collis, J.R. (forthcoming b) Redefining the Celts. In *Proceedings of the 13th International Congress of Celtic Studies, Bonn 2007*.
- Cunliffe, B.W. 1983 *Danebury: anatomy of a hillfort*. London. Batsford.

- d'Arbois de Jubainville, H. 1903 Conquête par les Gaulois de la région située entre le Rhin et l'Atlantique. *Revue Celtique* (1903), 162.
- Déchelette, J. 1914 *Manuel d'archéologie préhistorique, celtique et gallo-romaine. II-3: Second Age du Fer ou Époque de La Tène*. Paris. Picard.
- Eggers, H.-J. 1959 *Einführung in die Vorgeschichte*. Munich. Piper.
- Foot, S. 1996 The making of the *Anglecynn*: English identity before the Norman Conquest. *Transactions of the Royal Historical Society* (6th ser.) 6, 25–49.
- Hills, C. 2003 *Origins of the English*. London. Duckworth.
- Hind, J. 1972 Pyrene and the date of the Massiliot sailing manual. *Rivista Storica dell' Antichità* 2, 39–52.
- James, S. 1999 *The Atlantic Celts*. London. British Museum Press.
- Jones, D. 1705 *The antiquities of nations; more particularly of the Celtae or Gauls, taken to be originally the same people as our Ancient Britains, by Monsieur Pezron, englished by Mr Jones*. London. S. Ballard.
- Jones, O. 1856 *The grammar of ornament*. London. Day and Son.
- Kaul, F. 1991 The ball torques. In V. Kruta, O.-H. Frey, B. Raftery and M. Szabó (eds), *The Celts*, 540. London. Thames and Hudson.
- Kemble, J.M., Franks, A.W. and Latham, R.G. 1863 *Horae ferales. Studies in the archaeology of the northern nations*. London. Lovell Read and Co.
- Lhuyd, E. 1707 *Archaeologia Britannica, giving some account additional to what has been hitherto publish'd of the languages, histories and customs of the original inhabitants of Great Britain, from collections and observations in travels through Wales, Cornwall, Bas-Bretagne, Ireland and Scotland*. Oxford. Oxford Theatre.
- Megaw, R. and Megaw, V. 1996 Ancient Celts and modern ethnicity. *Antiquity* 70, 175–81.
- Morse, M. 2005 *How the Celts came to Britain: druids, ancient skulls and the birth of archaeology*. Stroud. Tempus.
- Pezron, P.-Y. 1703 *Antiquité de la nation et de la langue de Celtes autrement appelez Gaulois*. Paris.
- Prichard, J.C. 1831 *The eastern origin of the Celtic nations*. London. Houlston and Wright/Bernard Quaritch.
- Oppenheimer, S. 2006 *The origins of the British*. London. Constable and Robinson.
- Quesada Sanz, F. 2005 Patterns of interaction: 'Celtic' and 'Iberian' weapons in Iron Age Spain. In W. Gillies and D. W. Harding (eds), *Celtic connections. Papers from the Tenth International Congress of Celtic Studies, Edinburgh, 1995. Volume 2: Archaeology, numismatics and historical linguistics*, 56–78. University of Edinburgh.
- Raftery, B. 2006 The Insular Celts. In D. Vitali (ed.), *Celtes et Gaulois: l'archéologie face à l'histoire. La Préhistoire des Celtes. Festschrift pour Christian Goudineau*, 107–29. Bibracte 12/2. Glux-en-Glenne.
- Schwaller, M. 1991 The cemetery and settlement at Ensérune. In V. Kruta, O.-H. Frey, B. Raftery and M. Szabó (eds), *The Celts*, 360–1. London. Thames and Hudson.
- Sims-Williams, P. 1998a Celtomania and Celtoscepticism. *Cambrian Medieval Celtic Studies* 36, 1–35.
- Sims-Williams, P. 1998b Genetics, linguistics and prehistory: thinking big and thinking straight. *Antiquity* 72, 505–27.
- Sykes, B. 2006 *Blood of the Isles: exploring the genetic roots of tribal ancestry*. London. Bantam.
- Westwood, J.O. 1856 Celtic ornament. In O. Jones, *The grammar of ornament*, 89–97. London. Day and Son.
- Zeuss, J.K. 1853 *Grammatica Celtica*. Leipzig.

À propos de trois objets métalliques, témoins des relations entre le pays éduen et les Îles Britanniques

Jean-Paul Guillaumet et Aurélie Eugène

Lors de différentes études sur le mobilier de la période protohistorique découvert depuis plus d'un siècle en Nièvre et en Saône-et-Loire, nous avons pu identifier un mortier à fard à Bibracte et deux épées de la Saône provenant des Îles Britanniques.

Le mortier à fard de Bibracte

C'est seulement en 1985 que, dans un article publié dans la revue *Britannia*, Ralph Jackson (1985) identifie ces pièces en alliage base cuivre comme des nécessaires à fard en bronze moulé. Lors de cette première étude, il en présente déjà une centaine. En 1993, à l'occasion de la publication d'une note (Jackson 1993), il mentionne un corpus d'environ trois cents pièces.

Cet instrument se compose de deux éléments: l'un fixe, le mortier, et l'autre mobile, le pilon.

Le mortier est un corps en forme de croissant, muni sur la concavité d'un creux en V ou en U et sur la convexité (ou ses extrémités) un ou deux anneaux de préhension, circulaires, en D ou en cœur. Ces anneaux sont simples ou en forme de tête d'oiseau. Chaque extrémité du mortier se termine par une pointe, une boule ou une tête de bovidé, cheval ou oiseau. Certains mortiers ne présentent pas de décors, mais la plupart sont gravés, moulurés ou émaillés, plus rarement plaqués. Les gravures et les moulures soulignent les éléments de décor plastique comme les bords des boucles de préhension. Les gravures sont de simples rainures ou zigzags doublés, voire triplés. Les moulures sont des bourrelets, simples ou multiples, accentuant les formes du mortier. L'émaillage donne la couleur à l'objet: souvent rouge, mais aussi turquoise, bleu pâle, vert ou jaune. Il est disposé sur la surface sous forme de petits triangles placés les uns à côté des autres en respectant la courbure de l'objet. La taille des mortiers varie de 47mm à 108mm, avec une moyenne générale de 71mm. Si l'on considère les types, la longueur moyenne des mortiers à boucle excentrée est légèrement plus petite que celle des mortiers à boucle centrée. Ces derniers ont tendance à avoir une élaboration plus soignée, notamment pour les terminaisons zoomorphes et les décors émaillés.

Le pilon reprend les deux caractéristiques morphologiques principales du mortier: le corps en forme de croissant et sa préhension. La partie concave s'imbrique parfaitement dans la partie creuse du mortier. L'anneau de préhension circulaire ou en D, parfois ouvragé, est placé au centre de la concavité, plus rarement à une extrémité. La découverte des deux pièces en association est rare. La taille des pilons varie de 34mm à 73mm avec une moyenne générale de 59mm. Pour les nécessaires complets, la longueur du pilon est inférieure de 20mm à 30mm à la partie creuse du mortier. Les deux éléments du nécessaire sont attachés par les anneaux au moyen d'un lien, soit en matière organique comme une cordelette ou une lanière de cuir, soit une chaînette en métal, ceci afin d'éviter leur perte. Quelques exemples découverts en fouille montrent qu'ils sont aussi conservés avec d'autres objets de toilette, dans une trousse en matériau périssable. La matière qu'ils broient n'a jamais été déterminée, mais la morphologie même du nécessaire à fard implique l'emploi d'une quantité très réduite et un nettoyage systématique des objets après usage. La préparation assez précieuse, dont la dose est peu importante, est de nature cosmétique ou pharmacologique.

Conservé sous le numéro 24196.17 au Musée d'Archéologie Nationale depuis 1878, le mortier de Bibracte fait partie d'une série de '29 gros objets plus ou moins intéressants, non déterminés' (Fig. 1). Sa détermination a suscité de nombreuses hypothèses: pendeloque, décor de vase, manche de miroir, amulettes. Il a été trouvé en 1867 pendant la première année de fouille, dans le quartier artisanal au-dessus de la porte du Rebout, dans une structure Champlain 19. Cette structure est un bâtiment en pierre composé de deux pièces séparées par un mur de refend, ouvert au sud, auquel sont accolés au nord deux celliers semi enterrés dans la pente de la montagne. La fouille a consisté à suivre les murs et le résultat est consigné en quelques lignes dans la publication de ces travaux sans mention de l'objet (Bulliot 1899, tome 1, pp 281-2). Dans les carnets de fouilles manuscrits, il fait mention dans, semble-t-il, deux 'creux funéraires', c'est-à-dire des fosses où, parmi les découvertes, un petit ornement en métal pourrait être l'objet de notre étude.

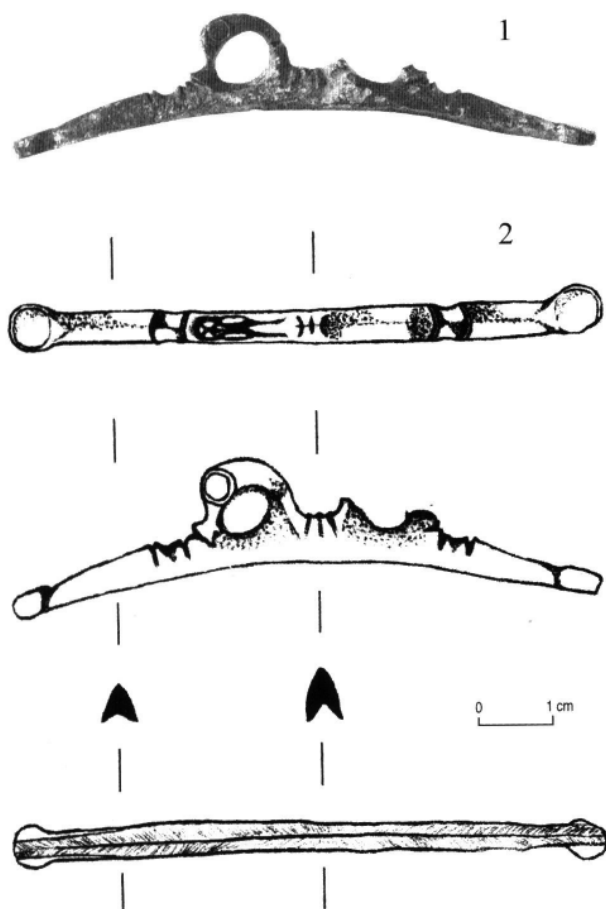


Fig. 1—Mortier de Bibracte. 1. Photo Bibracte/A. Maillier. 2. Dessin A. Eugène (échelle 1/1).

Ce mortier, en alliage cuivreux, mesure 78mm. C'est une pièce moulée, obtenue à la cire perdue, sans retouche apparente. Le corps, en forme de croissant à la courbure peu marquée, est muni sur la concavité d'un creux en V et, sur la convexité, de deux anneaux de préhension circulaires en tête d'oiseau tournée vers l'extérieur. L'un des anneaux est brisé et il en subsiste l'extrémité du bec. Chaque extrémité du mortier se termine par un disque débordant du corps de la pièce. Les anneaux sont encadrés d'une gorge entre deux moulures. Les deux têtes sont séparées par trois moulures. Les têtes d'oiseaux sont marquées par un bec en spatule, un œil rond souligné par un cercle et un cou long et courbe.

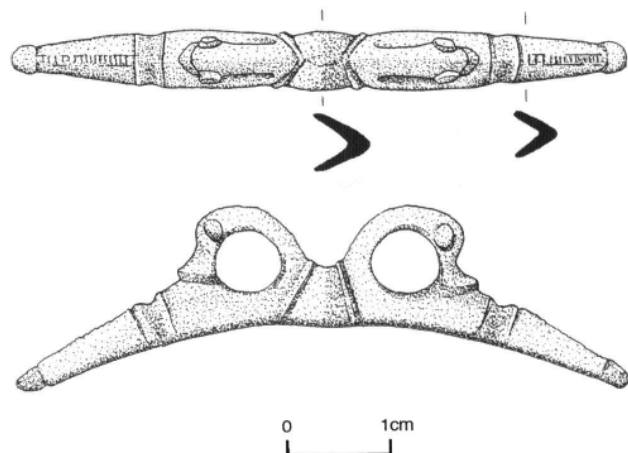


Fig. 2—Mortier d'Arras Actiparc (dessin service archéologique d'Arras) (échelle 1/1).

Aucun mortier à deux anneaux n'est signalé dans les travaux de Jackson. Le seul connu a été trouvé lors de fouilles récentes à Arras (Fig. 2) et possède deux anneaux en forme de tête d'oiseau (Jacques et Prilau 2003, 67, n° 94). Il provient du niveau supérieur du comblement du fossé du fortin découvert dans le chantier Actiparc (période augustéenne). C'est une pièce d'une taille semblable, moulée. Le corps, en forme de croissant à la courbure plus marquée, est muni sur la concavité d'un creux en V et sur la convexité de deux anneaux de préhension circulaires à tête d'oiseau tournée vers l'extérieur. Chaque extrémité du mortier se termine par un disque débordant du corps de la pièce. Les anneaux sont encadrés d'une large gorge entre deux moulures. Les deux têtes sont séparées par deux moulures, suivies jusqu'aux disques des extrémités d'une bande de traits parallèles. Les têtes d'oiseaux sont marquées par un bec en spatule, un œil rond souligné par un cercle et un cou long et courbe. Ces deux pièces ont le même programme décoratif, mais le décor de l'exemplaire de Bibracte semble plus soigné dans les détails.

Le décor en palmipède se retrouve sur l'anse de la tasse de Keshcarrigan (Irlande) en alliage cuivreux (Fig. 3). Par sa forme générale, le traitement de l'œil et le bec spatulé, cette anse est dans le même esprit (Raftery 1983, fig. 175). Malgré son lieu de découverte, la tasse est considérée comme

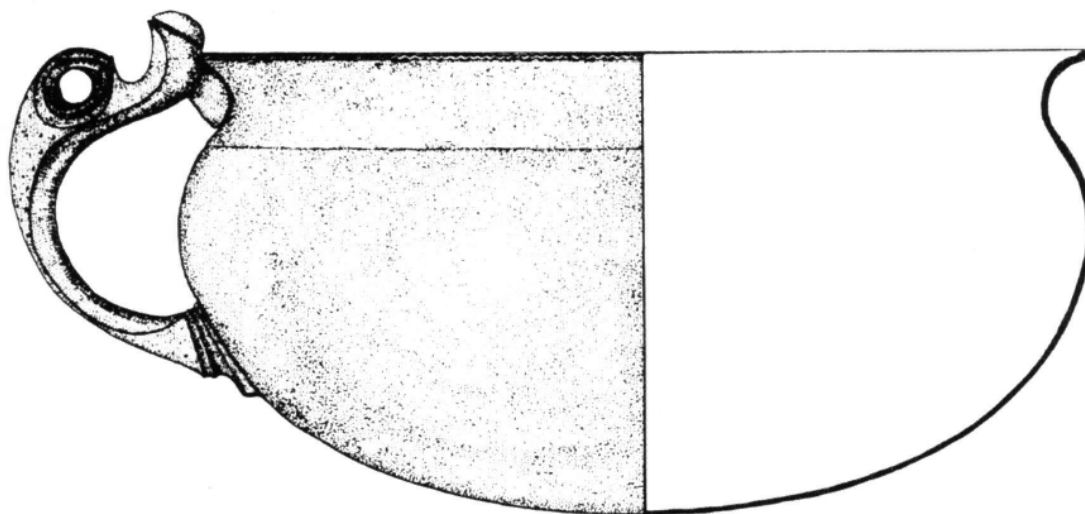


Fig. 3—La tasse de Keshcarrigan (Irlande), d'après Raftery 1983, fig. 175.

provenant du sud de l'Angleterre où se situe le plus grand nombre de découvertes de mortiers à fard.

Au point de vue chronologique, le mortier d'Arras est daté de l'époque augustéenne, la tasse de Keshcarrigan du premier siècle de notre ère. Le mortier de Bibracte est sans contexte précis. Cependant, les travaux en cours montrent une occupation importante à l'époque augustéenne et nous proposons de considérer plutôt ces trois objets stylistiquement très proche de cette époque.

En plus des deux mortiers décrit ci-dessus, quatre autres éléments de mortiers sont reconnus actuellement en France (Fig. 4). Un mortier et son pilon proviennent d'une tombe à incinération gallo-romaine de Théroüanne (Pas-de-Calais). Il est daté du IIe, IIIe siècle de notre ère (Jackson et Thuillier 1999) (Fig. 4, 3). Un second est signalé dans le même article à Saintes (Charente). Un mortier à anneau latéral provient des recherches sur le plateau de Corent (Puy-de-Dôme) avant 1857 (Granges 1857; Faye 1995, pl. 33, n° 343) (Fig. 4, 1). Un pilon provient d'un établissement rural du Chemin Chevaleret, Échiré (Deux-Sèvres), daté de La Tène C2 et du début D1 (Nillesse 2006, 242, n° 13-697) (Fig. 4, 2).

Deux épées de la rivière Saône

Par les dragages puis les prospections subaquatiques, les découvertes dans la Saône sont l'un des apports les plus

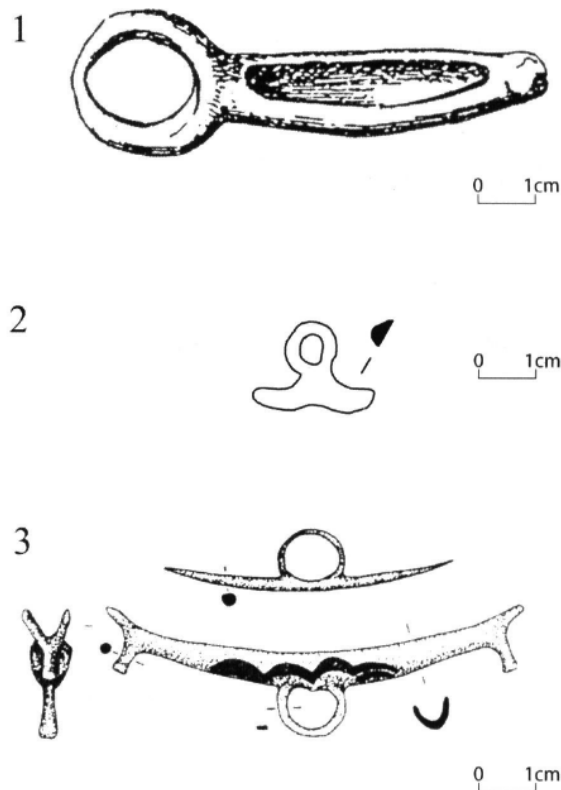


Fig. 4—1. Mortier de Corent d'après Granges 1857, pl. 19, n° 138. 2. Pilon de mortier d'Échiré, d'après Nillesse 2006. 3. Mortier et son pilon de Théroüanne, d'après Jackson et Thuillier 1999.

Fig. 5

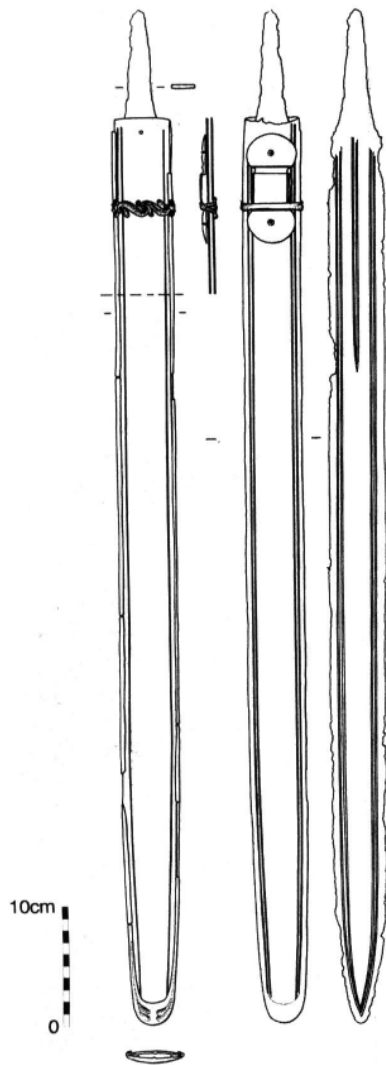


Fig. 6

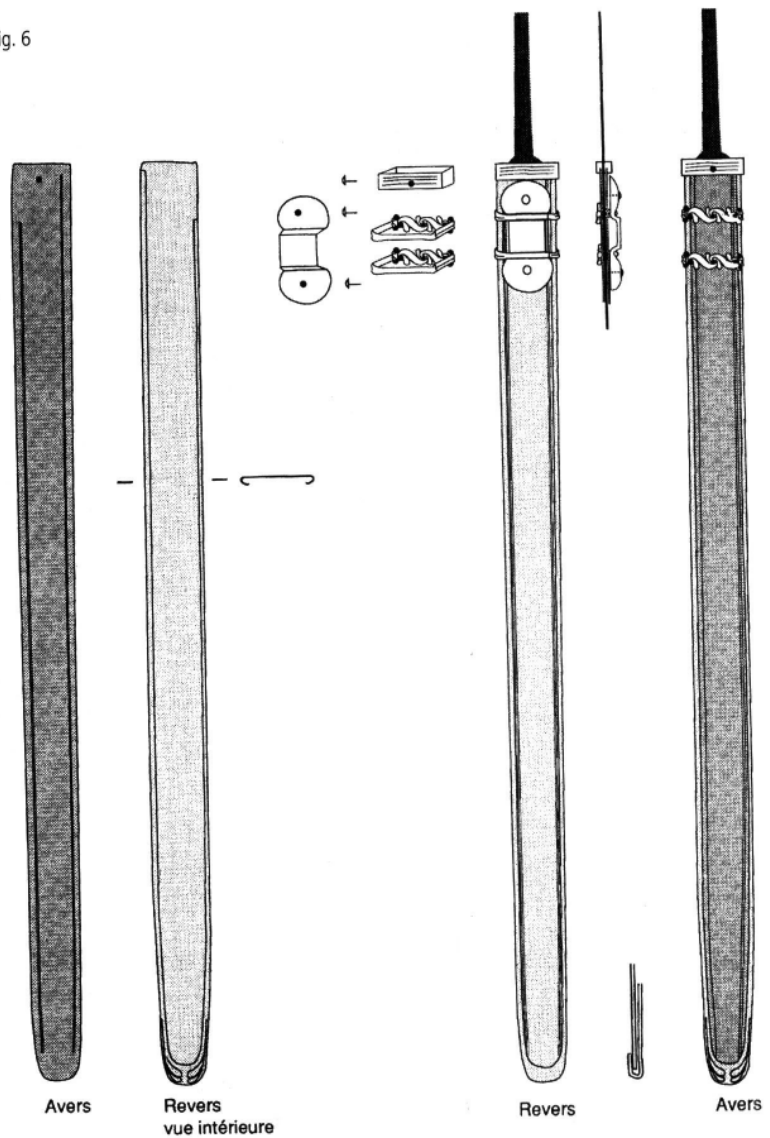


Fig. 5—L'épée d'Allerey (Saône et Loire), dragages sur le gué de la tête aux chevaux, musée de Chalon-sur-Saône n° 99.28.51 (dessin C. Michel, musée de Chalon-sur-Saône).

Fig. 6—Montage actualisé d'un fourreau à bouterolle incluse dans la tôle de revers dit type 'plumier' (dessin Bibracte/D. Beucher).

importants pour la connaissance du monde celtique en Bourgogne. Parmi les centaines d'objets découverts sur les gués, nous avons identifié deux épées d'origine britannique.

La première est une épée à fourreau en alliage cuivreux. Découverte lors de dragages sur le gué de la tête aux chevaux à Allerey (Saône-et-Loire), elle est conservée au musée de Chalon-sur-Saône (n° 99.28.51) (Fig. 5). La poignée, dont l'extrémité a disparu, est de forme

trapézoïdale et de section rectangulaire. La lame est ornée sur toute sa longueur de deux filets parallèles le long des tranchants et, dans sa partie supérieure, d'un filet médian. Son extrémité est à pointe adoucie. Le fourreau, incomplet, est en quinze pièces à l'origine: deux tôles, deux frettes munies de trois boutons émaillés, un pontet et ses deux rivets de fixation, une frette d'entrée de fourreau et son rivet de fixation (Fig. 6). La tôle de revers, à deux gouttières,

comporte une pseudo bouterolle en bronze coulée en U, décorée de deux larmes en creux en symétrie. La tôle d'avvers est soulignée de deux traits continus gravés le long de la gouttière. La partie haute des deux tôles est droite et porte encore un trou de rivet et la trace d'étain de la brasure qui fixait une frette massive à l'entrée du fourreau (Fig. 7). La pièce de fixation est un passant rectangulaire cantonné de deux disques rivetés au centre et brasés à l'étain. Deux frettes le renforçaient. Elles sont richement décorées à l'avvers d'animaux affrontés à l'œil protubérant, sans doute des dragons où, d'après la tige de fer encore visible dans l'œil central, était fixé un bouton décoratif en alliage cuivreux, sans doute rehaussé d'émail.

Ce type de fourreau à bouterolle incluse dans la tôle du revers est un type que nous avons mis en évidence il y a quelques années (Guillaumet et Szabó 2002). À l'époque, nous en avons identifié deux dans la tombe aristocratique de Fléré-la-Rivière (Indre) datable de l'extrême fin de La Tène D2 (Ferdrière et Villard 1993, 60–1) (Fig. 8a et b) et une troisième au musée de Châteauroux, provenant de Levroux sans contexte précis (*ibid.*, 205). La reprise de l'ensemble du mobilier du temple celtique puis romain de Mirebeau (Côte-d'Or) nous a permis récemment d'en identifier un nouveau (inédit). Ces fourreaux à bouterolle incluse sont élaborés suivant un savoir-faire totalement différent des autres fourreaux de la période celtique. Ils sont particulièrement nombreux dans les Îles Britanniques et sont la plupart ornés de décors de style caractéristique de cette région. Dans sa publication récente des armes de l'âge du Fer britannique soit 266 pièces, I. M. Stead (2006) en présente un certain nombre (exemplaires de Battersea (Fig. 8c), Icklingham, Wood Burcote, Congham, Badney, St Mawgan-in-Pydor, Isleham river) sans signaler cette particularité de fabrication. Tous ces fourreaux britanniques ont un pontet d'un type très élaboré qui rigidifie tout le fourreau. C'est une longue pièce coulée, retravaillée par martelage au niveau du passage du ceinturon et fixé par rivetage et brasure. Un long bourrelet débute sous l'attache du pontet et se termine au niveau de la bouterolle incluse par un élargissement souvent décoré. Sa partie supérieure se termine par la frette de renfort. Celle-ci est fixée par brasure et un rivet. Deux barrettes évitent des arrachements au niveau de l'attache du ceinturon. Ce mode de suspension avec exactement les mêmes techniques d'assemblage se retrouve sur les épées de Fléré-la-Rivière et Levroux.

Le fourreau d'Allerey a une pièce de suspension différente. Elle est en tout point semblable à une série bien



Fig. 7—L'épée d'Allerey (Saône et Loire), dragages sur le gué de la tête aux chevaux, musée de Chalon-sur-Saône n° 99.28.51: détail de la frette, d'après Bonnamour 2000, 34.

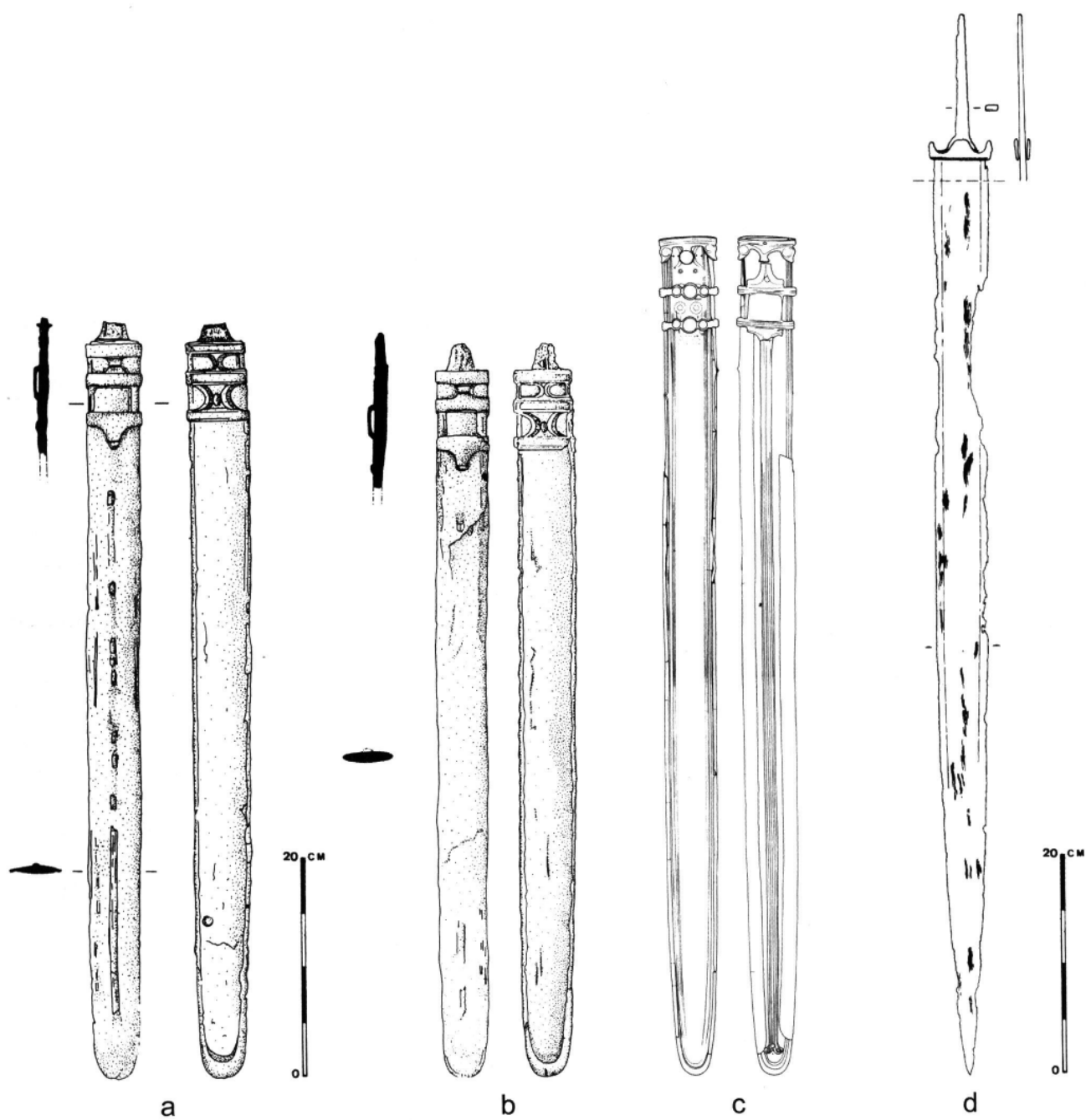


Fig. 8—(a) et (b) Les deux épées de Fléré-la-Rivière, d'après Ferdière et Villard 1993, 60; (c) L'épée de Battersea, d'après Stead 2006, fig. 78; (d) L'épée de Pouilly-sur-Saône, dans la Saône, musée Denon à Chalon-sur-Saône n° 80.11.1 (dessin C. Michel, musée de Chalon-sur-Saône).

connue sur le plateau Suisse, dès La Tène C (de Navarro 1972) sur le site de La Tène, à La Tène D à Cornaux (Schwab 1989, 116–17) et à Port (Tschumi 1940, pl. 7a). Cependant, l'épée d'Amerden Lock (Stead 2006, fig. 69) à bouterolle ajoutée est de cette même forme mais décorée. La possibilité de combiner bouterolle et pontet de types différents est habituelle à cette période ainsi que nous l'avons démontré pour les fourreaux de la Saône (Guillaumet et Szabó 2002). Il peut s'agir d'une demande spécifique de l'acheteur à l'artisan pour des raisons qui nous échappent actuellement. En dehors de cette particularité, le fourreau d'Allerey est caractéristique des productions britanniques. Son fourreau, à bouterolle incluse dans le revers et trou de rivet dans la partie haute de la tôle avers pour fixer la frette supérieure, est construit sur le même schéma que le fourreau de Battersea. Les décors plastiques de la bouterolle et de la frette se rattachent au vocabulaire artistique reconnu comme typique des Îles.

La seconde arme est une lame d'épée recueillie dans la Saône à Pouilly-sur-Saône (musée Denon à Chalon-sur-Saône n° 80.11.1) (Fig. 8d). L'extrémité de la poignée a disparu. La lame est à épaules tombantes et extrémité pointue. À la partie basse de la poignée, la lame porte un quillon ou croisière en alliage base cuivre 'en chapeau de gendarme aux bords relevés' sans décor. Cette pièce est caractéristique d'épées britanniques de la fin du I^{er} siècle avant notre ère et du I^{er} s. de notre ère (MacGregor 1976, 144–54; Stead 2006, n° 204 et fig. 107).

Ces trois pièces ont toujours été des *unica* dans les séries métalliques du pays éduen. Grâce à de récents travaux, nous avons pu en proposer une identification et en retrouver d'autres dans des sites dont nous avons participé à l'étude. À ce corpus, nous devons ajouter l'identification toute récente d'un demi-produit, appelé *Hooked Billet*, par une jeune chercheuse Marion Berranger lors de son étude des demi-produits mis au jour à Bibracte. Découvert au XIX^e siècle par J.-G. Bulliot, il avait été interprété et publié comme une enclume (Champion 1916).

Les objets de provenance des Îles Britanniques sont surtout connus dans le nord de la France et en Normandie. En identifier au cœur de la Bourgogne, dans le Berry, la Charente et l'Auvergne, est le signe d'une diffusion plus importante sur le continent que nous l'imaginions. Souhaitons que cette présentation suscite l'identification de nouveaux éléments qui permettront d'envisager les conditions et le sens de ces importations.

Bibliographie

- Bonnamour, L. 2000 *Archéologie de la Saône: 150 ans de découvertes*. Catalogue de l'exposition au Musée Denon, 2000. Paris. Editions Errance.
- Bulliot, J.-G. 1899 *Fouilles du Mont-Beuvray (ancienne Bibracte) de 1867 à 1895*. Saint-Étienne. J. Thomas.
- Champion, B. 1916 Outils en fer du Musée de Saint-Germain. *Revue Archéologique* 3, 211–46.
- de Navarro, J.-M. 1972 *The finds from the site of La Tène. Vol. I: Scabbards and the swords found in them*. London. The British Academy.
- Faye, S. 1995 *Les objets de parure et de toilette de l'oppidum de Corent* (Mémoire de maîtrise en histoire ancienne, sous la direction de V. Guichard et M. Provost). Clermont-Ferrand. Université Blaise Pascal.
- Ferdière, A. et Villard, A. 1993 *La tombe augustéenne de Fléré-la-Rivière (Indre) et les sépultures aristocratiques de la cité des Bituriges*. St-Marcel; Tours: Musée d'Argentomagus; RACF, 1993 (Mémoire du Musée d'Argentomagus 2/Suppl. à la *Revue Archéologique du Centre de la France* [RACF] 7).
- Granges, G. 1857 *Mélanges archéologiques*. Clermont-Ferrand. Thibaud.
- Guillaumet, J.-P. et Szabó, M. 2002 Les Fourreaux d'épées de la Tène dans la vallée de la Saône au musée de Chalon-sur-Saône. In D. Maranski and V. Guichard (eds), *Les âges du Fer en Nivernais, Bourbonnais et Berry oriental—Regards européens sur les âges du Fer en France*, 199–232. Bibracte 6. Glux-en-Glenne. Centre archéologique européen du Mont Beuvray.
- Jackson, R. 1985 Cosmetic sets from late Iron Age and Roman Britain. *Britannia* 16, 165–92, pl. 12.
- Jackson, R. 1993 The function and manufacture of Romano-British cosmetic grinders: two important new finds from London. *Antiquaries Journal* 73, 165–9.
- Jackson, R. et Thuillier, F. 1999 A British cosmetic set (*nécessaire à fard*) from Théroutan (Pas-de-Calais, France). *Instrumentum* 9 (Juin 1999), 23–4.
- Jacques, A. et Prilau, G. (eds) 2003 *Dans le sillage de César: traces de romanisation d'un territoire, les fouilles d'Actiparc à Arras*. Exposition au Musée des Beaux-Arts d'Arras, du 27 septembre 2003 au 4 janvier 2004. Arras. Musée des Beaux-Arts.
- MacGregor, M. 1976 *Early Celtic art in north Britain*, vol. 2. Leicester University Press.
- Nillesse, O. 2006 Les Dépôts d'objets en fer dans les

- établissements ruraux gaulois de l'ouest de la France: le rituel est-il au fond de la poubelle? In G. Bataille and J.-P. Guillaumet (eds), *Les Dépôts métalliques au second âge du Fer en Europe tempérée. Actes de la table ronde de Bibracte, 13-14 octobre 2004*, 221-46. Bibracte 11. Glux-en-Glenne.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities* (2 vols). Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Philipps-Universität, Marburg.
- Schwab, H. 1989 *Archéologie de la 2^e correction des eaux du Jura. Vol. 1: Les Celtes sur la Broye et la Thielle*. Archéologie fribourgeoise 5. Fribourg. Éditions Universitaires Fribourg Suisse.
- Stead, I.M. 2006 *British Iron Age swords and scabbards*. London. British Museum Press.
- Tschumi, O. 1940 *Die ur- und frühgeschichtliche Fundstelle von Port im Amt Nidau (Kanton Bern)*. Biel. Verlag der Heimatkundekommission Seeland.

Small change: two recent coin finds from Humberstone (Leicestershire) and long-distance contacts in later Iron Age Britain

Colin Haselgrove

A major theme of Barry's research has been the nature of the links between Ireland, Britain and the peoples of continental Europe, evident in the close stylistic and technical similarities between objects of decorative metalwork found in areas many hundreds of kilometres apart (e.g. Raftery 1984). A related topic, on which Barry has also written extensively, is the impact of the Roman world on the indigenous inhabitants of these islands before and during the Roman occupation of southern Britain in the early centuries AD (e.g. Raftery 1994; 2005). This short study considers two recent coin finds from the English East Midlands that have a bearing on both themes, on the one hand providing fresh insights into the character of inter-regional contacts in later Iron Age Britain, and on the other hand posing new questions about the nature and extent of Roman influence on groups living outside the extreme south-east of England in the period leading up to the Claudian invasion of AD 43.

The finds in question come from Humberstone, now a suburb of Leicester, some 5km north-east of the Roman, medieval and modern city centre. Over the last ten years, investigations in advance of development at Humberstone have resulted in the discovery of a large Iron Age settlement on the higher ground east of the River Soar (Fig. 1). Two major excavations have taken place: in 1997–8 by Oxford Archaeology at Elms Farm (Charles *et al.* 2000), and in 2001–2 by University of Leicester Archaeological Services (ULAS) at Manor Farm, just across the A46–A47 link road from Elms Farm, as well as various smaller evaluations and geophysical survey (Thomas 2008a; forthcoming). These have allowed the settlement remains to be traced over an area in excess of 8ha, making Humberstone the largest Iron Age site known in the county. Within the c. 5ha area excavated, two main zones of occupation are apparent: a linear spread of circular buildings and other structures adjacent to an east–west boundary ditch, and—roughly 100m to the south and separated by an area that is virtually devoid of features—a series of large stock enclosures and further circular structures (Fig. 2).

The Humberstone site evidently saw activity over a long period, beginning as early as the Bronze Age (Charles *et al.* 2000, 120–2), but the radiocarbon dates and finds agree in

placing the intensive occupation in the later Iron Age, Bayesian modelling indicating a probable (68%) starting date of 440–320 cal. BC and a closing date of 40 cal. BC–cal. AD 20 (Hamilton 2008). At the same time, it is apparent that the village-like appearance of this and other so-called 'aggregated' settlements in the East Midlands (Willis 2006, 101), such as Crick (Woodward and Hughes 2007) or Stanwick (Neal 1989) in Northamptonshire, is to some extent illusory; rather, frequent shifts in building location and repeated reoccupation of the same spot, some of it possibly seasonal, have created a palimpsest of remains that give that impression. Even so, at least in the later Iron Age, Humberstone must have housed a larger population than the many smaller enclosures known in the region, with up to six residential clusters occupied at any one time, although the occupied area seems to have contracted in the latter stages (Thomas 2008a). I shall return to the date of abandonment below, as it has a direct bearing on the significance of the finds. As at the other aggregated settlements, there is some evidence of zoning of particular activities at Humberstone, in the form of specialised metal-working areas on both the Elms Farm and Manor Farm areas of the site (*ibid.*).

Humberstone is one of several later Iron Age sites in the Leicester area. Occupation of this date is attested nearby at Crown Hills, whilst another extensive settlement beside a boundary has been explored at Beaumont Leys to the west of the River Soar (Thomas 2008b), although this was probably abandoned somewhat earlier than Humberstone. Other excavated sites include the small enclosed farms at Enderby and Huncote south-west of the city (Meek *et al.* 2004); Kirby Muxloe to the west; and Queniborough, Rearsby and Wanlip (Beamish 1998) to the north. Like Humberstone, all these sites are located on rising ground away from the Soar valley, here broad and flat, and that of its tributary, the Wreake, in marked contrast to Leicester itself, which lies right on the terrace edge. To judge from evidence recovered over the years in various excavations, the earliest occupation on the site of the Roman town of *Ratae Corieltauorum* dates from the first century BC and extended rapidly in the early first century AD to cover an area of up to 10ha along the river. That Iron Age *Ratae* was already a place of some

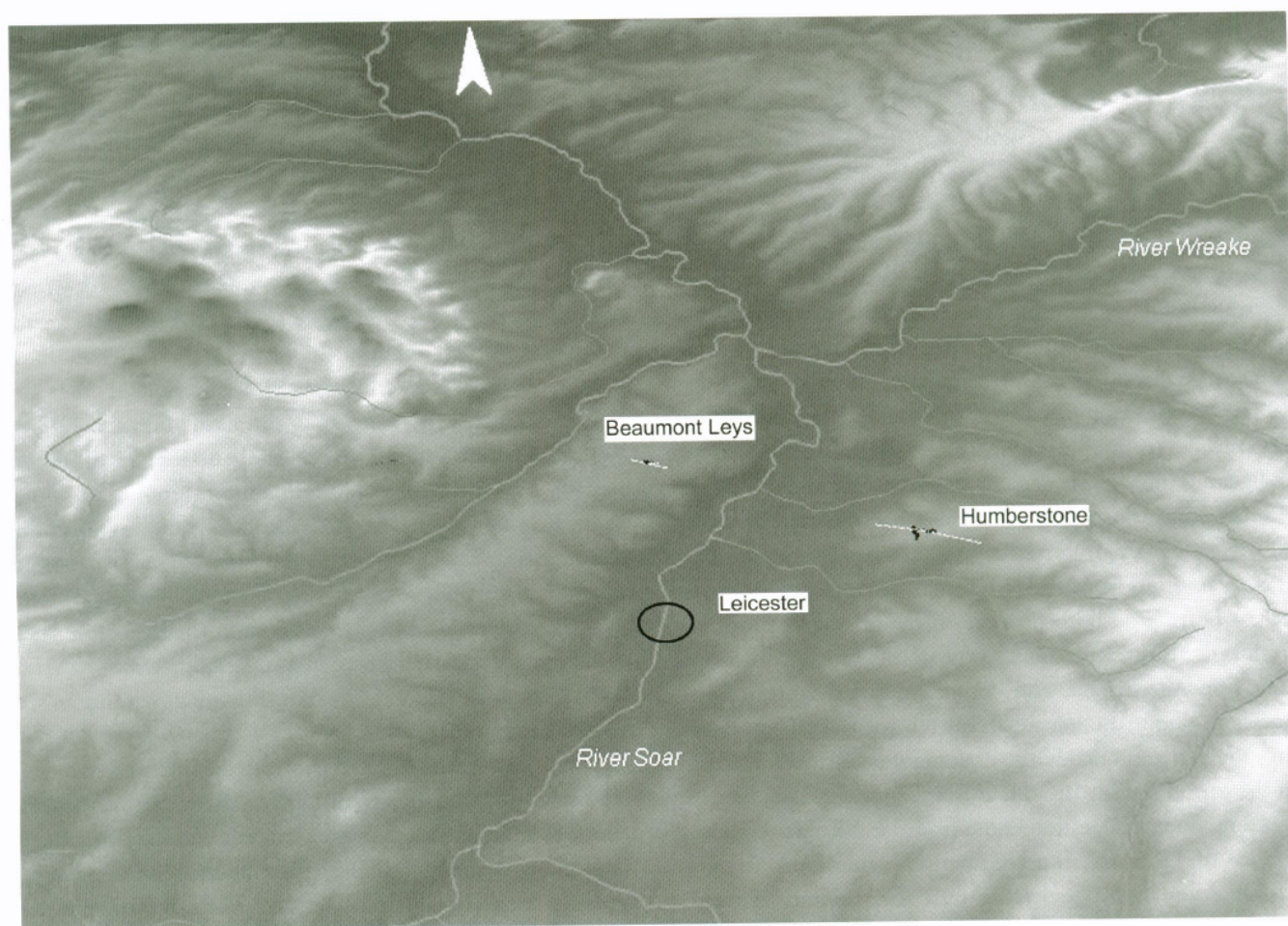


Fig. 1—The location of the sites around Leicester. Landscape visualisation by Matt Beamish using OS spot-height data in ArcView (vertical scale x3).

importance is apparent not only from its size but also from the finds. In the late Augustan–Tiberian period, the site was in receipt of a wide range of Roman imports, including Arretine and Gaulish wares (Clay 1985, 30; Cooper and Buckley 2003, 31–3). Another indication of its standing is the evidence for coin production, which includes a baked clay flan tray found in 2007 at the Merlin Works, Bath Lane (Kipling, forthcoming). The ten or so Iron Age coins found at Leicester are mostly local but include two Gaulish imports, one a brass issue of Augustan date (Fitzpatrick 1994). Most of the limited structural evidence from the pre-Roman occupation takes the form of pits and gullies, but includes part of a possible circular building and both intact and disturbed inhumation burials.

Having briefly examined the regional background, we may turn to the recent coin finds from Humberstone that

form the subject of this paper. The first is a hitherto unpublished Iron Age *potin* (cast-bronze) coin from the Manor Farm excavations; the second discovery comprises a pair of Roman Republican *denarii* found together a few years earlier at Elms Farm. All three coins came from Iron Age features. No other Iron Age coins were found in the excavations and, whilst a handful of Roman bronze types were found at Manor Farm, they do not seem to be connected with the main occupation of the settlement (Thomas 2008a).

The *potin* coin from Manor Farm

The British *potin* from Humberstone belongs to what is now generally known as the Kentish Primary series (Holman

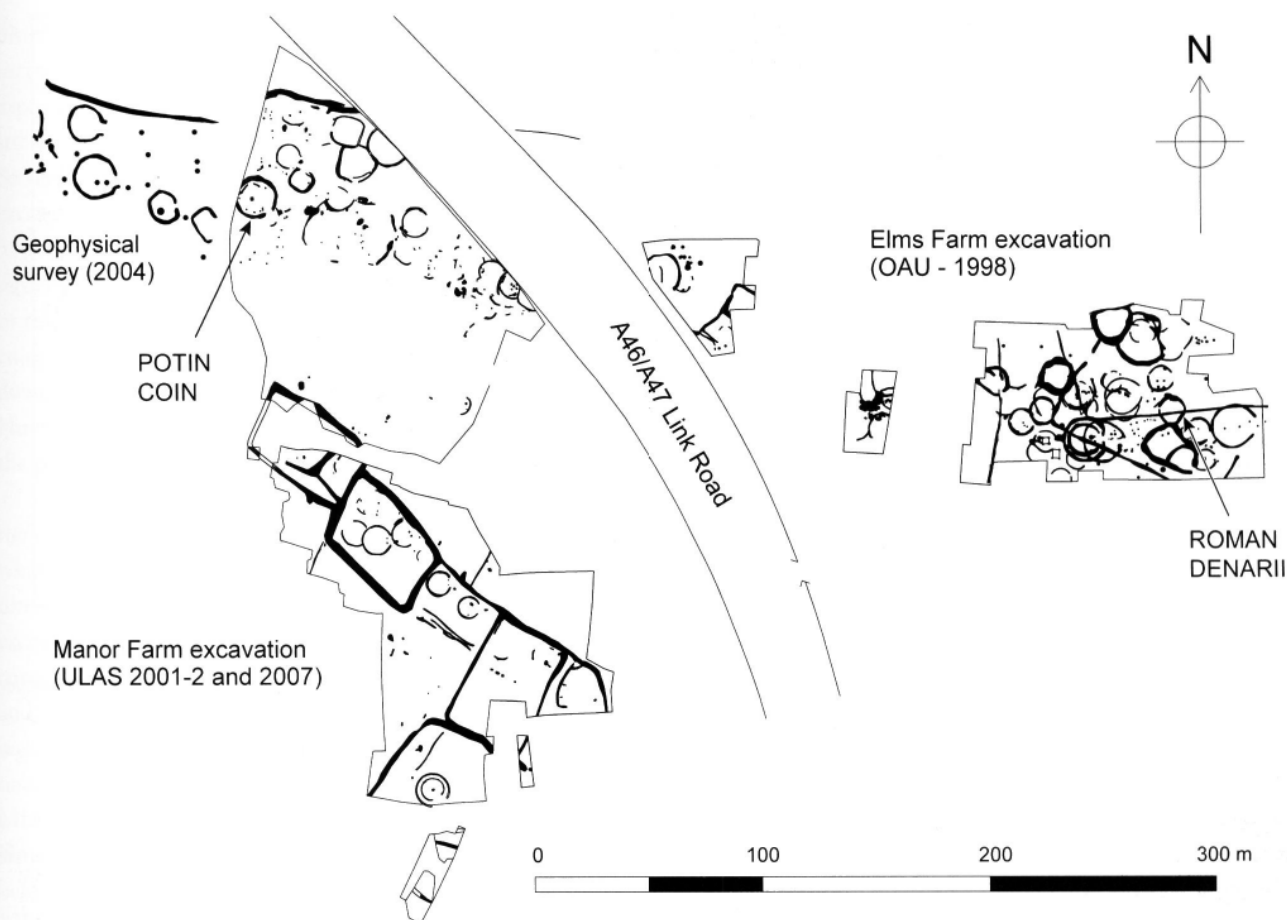


Fig. 2—Plan of the 'aggregated' settlement at Humberstone.

2000, 206; Haselgrove 2006, 18). The obverse shows a devolved head of Apollo facing left, the reverse a butting bull facing right, with the pseudo-legend MA above (Fig. 3). The Manor Farm coin is of the same type as BM 662 (Hobbs 1996) and Van Arsdell 1402 (Van Arsdell 1989); it weighs 3.01g. As the tang on this example shows clearly, these bronze coins were cast in interconnected moulds and subsequently separated. They typically have a high tin content, hence the use of the French term 'potin'. The Manor Farm coin has not been analysed, but the usual composition is around 18–20% tin and 78–82% copper, although surface EDXRF analysis suggests a tin content as high as 50% for some examples. When freshly cast, they will have had a glossy appearance, more like silver than base metal.

The type was defined in the 1980s following the discovery of a hoard containing nearly 2,000 coins of this

series at Thurrock (Essex). Initially the series was thought to be local to Essex (Van Arsdell 1989, 320), but it has since become clear that it originated in Kent, where there have been dozens of finds, especially in East Kent (Haselgrove 2006, 18–21). The design is copied from struck bronze issues of the southern French city of Massalia (Marseille) current in the late third and early second centuries BC, hence the MA above the butting bull. The dating of the British series has yet to be satisfactorily established, but is likely to lie within the second century BC. The earliest find of a Kentish Primary potin is from Maiden Castle (Dorset) in a context dating from the (earlier?) second century BC (Sharples 1991, 241), whilst an almost identical but possibly unrelated series from the Paris area in northern France occurs in contexts dating from the very end of La Tène C1 (*c.* 200/180 BC), showing that on the Continent at least copying started at a date very close to that of the prototype (Haselgrove 2006, 21–2).



Fig. 3—The potin coin from Humberstone (scale 2:1). Inset: the Massalia bronze prototype (top) and its Paris Basin (middle) and Kentish (bottom) derivatives (after Haselgrove 1995, fig. 54).

The Kentish Primary potins were fairly certainly the first major coinage produced in Iron Age Britain. Their extreme rarity amongst the abundant coin finds from Canterbury implies that they had effectively disappeared from circulation by the mid-first century BC, although some site finds may be slightly later (Haselgrove 2006, 19–20). Another sign of their early date is provided by the discovery of British Flat Linear Class II potins, which are ultimately derived from Kentish Primary types via several intermediaries, in mid-first-century BC deposits at Corent (Auvergne) in central France (Gruel and Haselgrove 2007, 242–5).

The excavated context of the Manor Farm potin unfortunately offers little help in resolving the dating of the series or even when it reached the settlement, apart from establishing that it did so during the Iron Age. The coin was found in the final fill (440) of a penannular gully defining a large circular building (roundhouse 13) at the western limit of the excavation. Two radiocarbon dates of 400–200 cal. BC and 360–50 cal. BC for phases 1 and 2 of the building respectively would accord well with a second-century BC date for the series, but a rich later Iron Age pottery deposit from the equivalent context at the rear of the building includes some forms that are thought to date from the late first century BC or early first century AD (Thomas 2008a).

More generally, this appears to be the area where the latest occupation on the Manor Farm part of the settlement was focused.

Although concentrated in Kent, a scatter of Kentish Primary potins occurs across southern England as far west as Dorset and the Severn estuary and up into eastern England as far as the Humber and the Trent (Haselgrove 2006, fig. 1). They have a wider distribution than the Flat Linear types that followed them, although these too occur outside Kent. Moreover, where Kentish Primary potins occur outside their territory of origin, it is noticeable that a fair number were found at or very near sites that were particularly important in their region and/or were probably involved in long-distance exchange. Apart from the Maiden Castle coin (above), there are, for example, finds from Colchester, Chichester and Stonea Grange, all important late Iron Age foci, and from Merthyr Mawr on the south Wales coast and South Ferriby on the Humber, both sites probably involved in maritime trading networks. Most of these are, however, metal-detector finds, and it is not clear how the finds relate to activity at these sites, chronologically or functionally.

The particular significance of the Kentish Primary potin from Manor Farm lies in its being only the second example (after Maiden Castle) to be found in a secure Iron Age context outside Kent. Coupled to the quite different

distribution of the Flat Linear potin types, this first of all increases the likelihood that the Primary potins were exported from their territory of origin whilst the coins were still current there, and not as part of any secondary diaspora. Secondly, along with an unstratified example found in the excavations at Stanwick, Northamptonshire (Curteis 1996, 35), the Humberstone find implies that these aggregated settlements in the East Midlands were themselves members of this network of more important sites, whose inhabitants enjoyed social and/or economic contacts, whether direct or down the line, with leading communities elsewhere.¹ In Humberstone's case, this inference is further strengthened by the presence of the two Roman denarii, as we shall see.

What this does not tell us, of course, is what the basis of these inter-regional contacts between communities was or what forms they took, or indeed whether the coins had a direct role in them. For instance, were the Kentish potins exchanged for other goods, or is their presence incidental to contacts and exchanges, which were mediated in other ways and/or were played out at an altogether different level? With regard to a possible economic basis for such contacts, one undoubtedly important commodity implicating the East Midlands was the high-quality iron from the Northamptonshire ore field. Exchange of iron probably lies behind the exceptional assemblage of quernstones found at the Iron Age hillfort of Hunsbury, which derive from all over Britain, including other iron-producing areas (cf. Ingle 1993–4).

It seems unlikely, however, that the Kentish potins were employed as a means of payment in such transactions between regions, since none of the areas where they have been found outside Kent are likely to have been coin-using at the time, although they might still have been used as gifts between social equals. On the other hand, even if the dispersion of these early potins from Kent is merely a by-product of the social networks linking leading communities and/or the movement of individuals, at a more general level it is noteworthy just how closely the distribution of finds coincides with the areas of southern and eastern England that were later to adopt coinage and strike their own regional types. It is conceivable, therefore, that all these groups subscribed to a system of broadly similar beliefs and values, one within which the concept of coinage was fairly readily assimilable, and quite different to those of their neighbours to the north and west, for whom the idea held no such attraction.

The two Roman Republican denarii from Elms Farm

The suggestion that the inhabitants of the Humberstone settlement had contacts with other leading groups beyond the region gains further support from the discovery of two Roman Republican silver denarii during the earlier excavations at Elms Farm. The two coins were found lying one on top of the other, implying that they were deposited together. The earlier of the two is a denarius minted at Rome in 154 BC by C. Scribonius (Crawford 1974, 201/1), the later a legionary denarius struck in 32–31 BC for Mark Anthony (*ibid.*, 544/15). Despite the difference of more than a century in date, the coins are in very similar condition, both being only moderately worn, implying that the earlier piece, in particular, had not been in 'normal' circulation for any extended period (Booth 2000, 196).

The denarii were found at the level of the machine-stripped surface in a layer (3607) that apparently overlay a pebbled surface and continued over the latest fill of a penannular ditch (F5019) in the eastern part of the site (Fig. 2 above). The exact stratigraphic relationship is unclear owing to disturbance in the area (Charles *et al.* 2000, 124–7). They seem likely to be a deliberate deposit rather than a casual loss, and it is possible that other coins were originally present but lost in the stripping. The penannular ditch is one of a group belonging to phase 1 of the Iron Age settlement, but the layer in which the coins were found presumably formed during the later phases of occupation (phases 2–3), represented by two residential clusters immediately to the west and north.

Republican denarii were common enough in Roman Britain up until the early second century AD, when they disappear, apart from the debased legionary denarii of Mark Anthony, which continued to circulate as late as the third century AD (Reece 1974, 82–4). Most of this older silver evidently reached the province in the wake of the military invasion. This could in theory be the case with the Humberstone finds, which might therefore represent some kind of offering made on the site of the former settlement long after its abandonment. In practice, however, this does not seem especially likely, not least owing to the similar state of wear of the two coins, leaving us to consider the alternative: that the coins reached the settlement when it was still occupied, possibly even before the mid-first century AD.

Although most of it arrived later, there can be little doubt that a certain amount of Roman gold and silver coinage

reached southern England prior to the Roman conquest. This is implicit in the copying of Republican and Augustan coin types by several British rulers (Creighton 2000, 80–125) and has been invoked to explain the very high purity of Iron Age silver issues in south-east England, which it is suggested were made from melted-down denarii (Northover 1992, 257). Definite examples of Roman coin imports to Iron Age Britain have, however, proved stubbornly difficult to identify, for two main reasons. The first is the difficulty of dating archaeological deposits on continuously occupied sites securely to one or other side of AD 43. The second is the relative rarity of denarii of Caius, Claudius and Nero in Romano-British hoards (Cheeseman 1994, 55). Consequently, hoards ending with Tiberian, Augustan and even Republican denarii, of which there are a number in Britain (Robertson 2000), could have been deposited at any time up to the later first century AD (when new denarii once again become commoner under the Flavian dynasty) without this being apparent from their composition. So far, the one site where we can be fairly certain that at least some of the earlier Roman coin types are pre-Claudian imports is Hayling Island temple, but quite apart from its geographical location right on the south coast, this site has unusually strong Continental links and the denarii from early deposits are all plated (Haselgrove 2005, 386–96).

This, then, is where the significance of the Humberstone coins lies, coming as they do from a settlement that not only shows no signs of being occupied in the Roman period,² but moreover one that is located outside the area of Britain where Roman influence is at its most obvious before the conquest, in the heart of the English Midlands. How secure, then, is the later Iron Age closing date suggested for the settlement? At 95% probability, Bayesian modelling estimates that the dated activity could have ended as late as cal. AD 110 (Hamilton 2008), but, if so, one would expect rather more Roman artefacts to have been found at a settlement which is only 5km from Leicester. The other object that might conceivably be of Roman date is a pair of copper-alloy tweezers, but such items are not unknown on late Iron Age sites (Hill 1997), including one from Braughing-Puckeridge, a site in close contact with the Roman world. The other imports found at the site were all of Iron Age date and included rotary and saddle querns (which predominate) and rubbing stones from a wide range of sources around central Britain (despite the availability of suitable sandstones in the local boulder clay: Roe 2000) and

some pottery vessels and a few sherds of briquetage.

More telling, in all probability, is the apparent absence from Humberstone of imported pottery comparable to the Arretine and Gallo-Belgic wares characteristic of the earliest occupation at Leicester, and the presence of only a handful of wheel-made forms and fabrics of late Iron Age affinity (Charles *et al.* 2000, 173–86; Thomas 2008a). Whilst it is rare in the region for these latter wares to predominate, this is apparently the case at some early first-century AD sites, including Queniborough, just 10km north of Leicester (Beamish and Clarke, forthcoming), which in turn suggests that the relative lack of such vessels at Humberstone could well have chronological significance. Given the three imported coins, the absence of local East Midlands Iron Age types may also be significant, since they are reasonably common on larger sites occupied in the first century AD (May 1994, 14–16), including Leicester.

On balance, therefore, the more restricted date range of 40 cal. BC–cal. AD 20 generated at 68% probability by Bayesian modelling appears to be as good an estimate as any for the end of the settlement. The clear implication is that the denarii reached Humberstone within the pre-Roman period, and we might also reasonably ask—given the broad coincidence of date—whether there is any link between the abandonment of the settlement and the rapid growth of Leicester in the valley below.

Discussion

At Humberstone, then, we have a sizeable later Iron Age community whose members had access to social or economic networks through which a Kentish potin coin and two Roman Republican denarii ultimately reached the site, the latter late in the life of the settlement, the former probably somewhat earlier. Meanwhile, at nearby Leicester we have a major new focus, with access to a range of Roman pottery imports rarely found outside south-east England, which seems to have expanded rapidly about the time that Humberstone went into terminal decline.

To put these observations in context, we must turn to a third site in the region, the remarkable open-air hilltop ritual and feasting site beside the Welland valley, some 18km south-east of Leicester (Score, forthcoming), found just two years after the discovery of the denarii at Elms Farm. Subsequent investigation of the site near Market Harborough yielded over 5,000 coins, of which 3,409 were

stratified, the vast majority of them coming from one of three contexts: a group of fourteen hoards buried near the entrance through a late Iron Age ditch running across the hilltop; a single deposit of over 1,000 coins found with a decorated silver-gilt Roman cavalry helmet; and from the fills of the ditch (Priest *et al.* 2003; Williams 2003; Leins 2007, 26). The composition of the unstratified coins suggests that they are nearly all from ploughed-out or partly ploughed-out hoards, with a small admixture of later losses. Most of the coins are local Iron Age issues from the East Midlands, but a minority came from the other coin-using areas of Britain and from the Continent. Significantly, given the presence of the Roman helmet, 117 Republican denarii, 31 denarii of Augustus and Tiberius and a single denarius of Claudius struck in AD 41/42 were also found (Leins 2007, 25–6), the latter in one of the hoards at the entrance. The helmet deposit included denarii of Tiberius, as did two of the seven other entrance hoards containing Roman coins. Other notable finds included a silver bowl and decorated circular mount and two ingots apparently made from melting down coins, all of which had been placed in the ditch.

The coins have been the subject of a detailed study by Leins (2007). On the basis of their broadly similar composition, he concludes that the hoards were mostly probably buried over a fairly short period of time in the early post-conquest period, although some might be a little earlier. The helmet deposit in particular was probably not assembled until at least the end of the reign of Tiberius (*ibid.*, 26). This would allow us to explain the arrival of this highly unusual object and the coins purely in terms of the invasion and subsequent consolidation of Roman power. The helmet could have been a diplomatic gift by the Romans to some local British leader who had proved useful to them during the invasion, for example by raising local troops in support of the invaders, or the possession of one who served as an officer in a Roman auxiliary unit (Williams 2003). On the other hand, the burial of objects in the aftermath of the invasion does not in itself prove that they all also arrived after AD 43, particularly when there is plausible evidence from Humberstone of some Roman coins having reached the area at an earlier date.

The case that some or all of the Roman coins and the helmet might have been pre-conquest imports certainly bears further consideration. As Leins notes, if we assume that the amount of Roman silver available locally increased over time and the composition of each hoard reflects the circulation pool at the time it was formed, when the hoards

are ordered by the percentage of Roman coins in each of them this should increase broadly in line with the date of the latest Roman coin present. This does seem to be the case (Leins 2007, 31–4), indicating not only that there is some time depth to the deposits but also that the Roman coins did not all arrive at once. There are also hints that some deposits incorporate more than one group of coins, which may have been formed separately and at different times; for example, thirteen of the sixteen Roman coins and all ten of the British ruler Cunobelin from the hoard with the denarius of Claudius were excavated in tight clusters around or beneath the main parcel of coins (*ibid.*, 33). This, however, contained only three denarii, the latest of them a legionary denarius of Mark Anthony, reminiscent of the finds at Humberstone.

If at least some of the Roman coins from these two sites, and possibly even the helmet, are indeed pre-conquest arrivals, the question arises as to whether or not their presence signifies direct contacts between the East Midlands and the Roman world at this date. The obvious alternative would be that these contacts were mediated through the kingdom in eastern England ruled first by Tasciovanus from St Albans (*Verulamium*) and then by Cunobelin from Colchester (*Camulodunum*), both of whom were apparently Roman clients and may have owed their position at least in part to Roman support (Creighton 2000, 216–21). There was certainly extensive contact with this powerful neighbouring polity, which accounts for 85 (73.3%) of the 116 Iron Age coins from other regions found at the Market Harborough site (Leins 2007, 35), while Colchester has been suggested as a possible source of the imported Roman pottery from Leicester (Clay 1985, 30). Conversely, there was no move to adopt Roman-style imagery on the local coinage, as did happen in the eastern and southern kingdoms (Creighton 2000, 80–125)—which might perhaps have been expected if the East Midland peoples did have strong links with the Roman world.

On the other hand, it would be unwise to write off all possibility of direct contacts with the Romans. The oft-quoted mention in Eutropius of the submission of the Orkney Islands to Claudius (Fitzpatrick 1989, 26) is warning enough. More likely than not, the Romans exchanged embassies and concluded treaties with leading groups in many parts of Britain, and intervened directly in local politics in some areas by providing bribes and subsidies to pro-Roman elements. There is no reason, however, why this should have led to the wholesale or even widespread adoption of Roman ideas and practices in the way that it did

in south-east England, whilst any physical evidence of contact may have disappeared, for instance by melting down silver coins for bullion, like the ingots from the Market Harborough site.

Also relevant are the close parallels between Leicester and the so-called royal sites of south-east England (e.g. Hill 2007, 31–3), especially St Albans. It is generally agreed that the latter was a new foundation, designed to provide a focus for the new kingdom forged by Tasciovanus out of previously independent groups, quite possibly with Roman backing; the new capital may even have been laid out following Roman principles (Creighton 2000, 213; 2006, 124–30). The two places share a number of common attributes: their location in a marshy river valley; the evidence of coin manufacture and of ritual and mortuary activity; and the presence of Roman imports. Prior to the foundation of a permanent settlement, both places could easily have been used as neutral meeting places, where groups living on either side of the river came together from time to time to reaffirm existing agreements and transact business with each other, cemented by appropriate rites and sacrifices.

Taking the analogy a little further, is it possible that in the Augustan period Leicester too was chosen as the location for a new seat of power by a particular group (or even individual), who with Roman support had succeeded in imposing their hegemony over the wider region? To emphasise the alliance on which their continued success partly depended, the new ruling group and their adherents adopted similar forms of dress and adornment to other groups in contact with the Roman world at this time (cf. Hill 1997, 102), as shown by the new brooch types found in large numbers at Leicester and perhaps by the tweezers from Elms Farm, as well as embracing 'Roman' ways of serving food and drink. Within a short space of time, the inhabitants of nearby sites like Humberstone had moved to the new centre, but further afield the changes had less impact and life continued much as before, right up to the conquest. At this point, Leicester was possibly just one of two or three major centres in the future *Civitas Corieltaavorum*, and its subsequent choice as capital by the Romans might well have been a reward for the unbroken support of the local ruling group before and after the invasion.

This, of course, is only one possible scenario and is heavily reliant on parallels elsewhere, but it does at least have the merit of shifting study of the late Iron Age in the East Midlands away both from the original 1980s core-periphery model and from the equally polarised model that has

replaced it, whereby the client kingdoms of south-east England are seen very largely as an extension of the Roman world, from which the rest of late Iron Age Britain was excluded. For many communities, the reality was probably somewhere in between. In the century between Caesar and Claudius, most of them will have had at least some contact with Rome, but the intensity and consequences of these encounters will have varied across Britain; whilst some groups will have been affected quite significantly, as I have suggested for the Leicester area, others will have had little cause to perceive the Romans as different from the other far-away peoples with whom they had contact over the centuries. This has taken us quite some way from the three coins found at Humberstone, but therein lies one of the fascinating aspects of archaeology: the power of small objects to help tell much bigger stories.

Acknowledgements

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Notes

- (1) Another Kentish potin was found in 2005 at Tattenhoe Park, Milton Keynes (Taylor 2006), an aggregated settlement of similar type to Humberstone. Preliminary assessment of the pottery suggests that the settlement was principally occupied in the third and second centuries BC, although a handful of later features were found. The Tattenhoe Park coin was found in a very similar context to the Elms Farm coin, coming from the final recut of the ring-ditch (RD1) associated with a long-lived circular building. The report does not specify the type of Kentish potin, but from the description it is probably an early Flat Linear type rather than a Primary potin. Either way, however, the find is of significant interest as further evidence of the export of Kentish potins at an early date to aggregated settlements in eastern England.
- (2) At some stage, the ditches of a field system were dug

over the abandoned settlement, along with a vague line of post-holes, but only Iron Age pottery was found in the fills (Charles *et al.* 2000, 149–50). The field system may be Romano-British or later still.

References

- Beamish, M.G. 1998 A middle Iron Age site at Wanlip, Leicestershire. *Transactions of the Leicestershire Archaeological and Historical Society* 72, 1–91.
- Beamish, M.G. and Clarke, S.J. (forthcoming) Rearsby bypass road scheme, Site 1 Queniborough (SK 648 128). *Transactions of the Leicestershire Archaeological and Historical Society* 82.
- Booth, P. 2000 Roman Republican denarii. In B. M. Charles, A. Parkinson and S. Foreman, 'A Bronze Age ditch and Iron Age settlement at Elms Farm, Humberstone, Leicestershire'. *Transactions of the Leicestershire Archaeological and Historical Society* 74, 113–212, at pp 195–6.
- Charles, B.M., Parkinson, A. and Foreman, S. 2000 A Bronze Age ditch and Iron Age settlement at Elms Farm, Humberstone, Leicestershire. *Transactions of the Leicestershire Archaeological and Historical Society* 74, 113–212.
- Cheeseman, C. 1994 The coins. In M. G. O'Connell and J. Bird, 'The Roman temple at Wanborough, excavation 1985–1986'. *Surrey Archaeological Collections* 82, 1–168, at pp 31–92.
- Clay, P. 1985 The late Iron Age settlement. In P. Clay and J. E. Mellor, *Excavations in Bath Lane, Leicester*, 29–31. Leicester. Leicestershire Museums, Art Galleries and Records Service.
- Cooper, N.J. and Buckley, R. 2003 New light on Roman Leicester (*Ratae Corieltauvorum*). In P. Wilson (ed.), *The archaeology of Roman towns: studies in honour of John S. Wacher*, 31–43. Oxford. Oxbow.
- Crawford, M. 1974 *Roman Republican coinage*. Cambridge University Press.
- Creighton, J.D. 2000 *Coins and power in late Iron Age Britain*. Cambridge University Press.
- Creighton, J.D. 2006 *Britannia. The creation of a Roman province*. London. Routledge.
- Curteis, M. 1996 An analysis of the circulation patterns of Iron Age coins from Northamptonshire. *Britannia* 27, 17–42.
- Fitzpatrick, A.P. 1989 The submission of the Orkney Islands to Claudius: new evidence? *Scottish Archaeological Review* 6, 24–33.
- Fitzpatrick, A.P. 1994 The Celtic coins. In P. Clay and R. Pollard, *Iron Age and Roman occupation in the West Bridge Area, Leicester. Excavations 1962–1971*, 131–4. Leicester. Leicestershire Museums, Arts and Records Service.
- Gruel, K. and Haselgrove, C. 2007 British potins abroad. A new find from central France and the Iron Age in south-east England. In C. Gosden, H. Hamerow, P. de Jersey and G. Lock (eds), *Communities and connections. Essays in honour of Barry Cunliffe*, 240–62. Oxford University Press.
- Hamilton, D. 2008 Bayesian modelling. In J. Thomas, 'Excavation of an Iron Age "aggregated" settlement at Manor Farm, Humberstone, Leicester', 7–8. Unpublished ULAS Report 2008-133, Leicester.
- Haselgrove, C. 1995 Potin coinage in Iron Age Britain; archaeology and chronology. *Gallia* 52, 117–27.
- Haselgrove, C. 2005 A trio of temples: a reassessment of Iron Age coin deposition at Harlow, Hayling Island, and Wanborough. In C. Haselgrove and D. Wigg-Wolf (eds), *Iron Age coinage and ritual practices*, 381–418. *Studien zu Fundmünzen der Antike* 20. Mainz.
- Haselgrove, C. 2006 Early potin coinage in Britain: an update. In P. de Jersey (ed.), *Celtic coinage: new discoveries, new discussion*, 17–27. British Archaeological Reports, International Series 1532. Oxford.
- Hill, J.D. 1997 'The end of one kind of body and the beginning of another kind of body?' Toilet instruments and Romanisation. In A. Gwilt and C. Haselgrove (eds), *Reconstructing Iron Age societies: new approaches to the British Iron Age*, 96–108. Oxford. Oxbow.
- Hill, J.D. 2007 The dynamics of social change in Later Iron Age eastern and south-eastern England c. 300 BC–AD 43. In C. Haselgrove and T. Moore (eds), *The later Iron Age in Britain and beyond*, 16–40. Oxford. Oxbow.
- Hobbs, R. 1996 *British Iron Age coins in the British Museum*. London. British Museum Press.
- Holman, D. 2000 Iron Age coinage in Kent: a review of current knowledge. *Archaeologia Cantiana* 120, 205–33.
- Ingle, C. 1993–4 The quernstones from Hunsbury hillfort, Northamptonshire. *Northamptonshire Archaeology* 25, 21–34.
- Kipling, R. (forthcoming) Bath Lane (former Merlin Dye Works) (SK 580 045). *Transactions of the Leicestershire*

- Archaeological and Historical Society* 82.
- Leins, I. 2007 Coins in context: coins and votive deposition in Iron Age Leicestershire. *British Numismatic Journal* 77, 22–48.
- May, J. 1994 Coinage and the settlements of the Corieltauvi in East Midland Britain. *British Numismatic Journal* 64, 1–21.
- Meek, J., Shore, M and Clay, P. 2004 Iron Age enclosures at Enderby and Huncote, Leicestershire. *Transactions of the Leicestershire Archaeological and Historical Society* 78, 1–34.
- Neal, D.S. 1989 The Stanwick villa, Northants: an interim report on the excavations of 1984–88. *Britannia* 20, 149–68.
- Northover, P. 1992 Material issues in the Celtic coinage. In M. Mays (ed.), *Celtic coinage: Britain and beyond: 11th Oxford symposium on coinage and monetary history, 1989*, 235–99. British Archaeological Reports, British Series 222. Oxford.
- Priest, V., Clay, P. and Hill, J.D. 2003 Iron Age gold from Leicestershire. *Current Archaeology* 188, 358–60.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 2005 Iron-Age Ireland. In D. Ó Cróinín (ed.), *A New History of Ireland 1: prehistoric and early Ireland*, 134–81. Oxford University Press.
- Reece, R. 1974 Numerical aspects of Roman coin hoards in Britain. In J. Casey and R. Reece (eds), *Coins and the archaeologist*, 78–94. British Archaeological Reports, International Series 4. Oxford.
- Robertson, A. 2000 *An inventory of Romano-British coin hoards*. Royal Numismatic Society Special Publication 20. London.
- Roe, F. 2000 The worked stone. In B. M. Charles, A. Parkinson and S. Foreman, 'A Bronze Age ditch and Iron Age settlement at Elms Farm, Humberstone, Leicestershire'. *Transactions of the Leicestershire Archaeological and Historical Society* 74, 113–212, at pp 188–9.
- Score, V. (forthcoming) *Rituals, hoards and helmets: a Conquest period shrine in east Leicestershire*. Leicester Archaeology Monograph. Leicester.
- Sharples, N. 1991 *Maiden Castle: excavations and field survey 1985–6*. London. English Heritage.
- Taylor, E. 2006 An assessment report for archaeological excavations at Tattenhoe Park, Milton Keynes, Buckinghamshire, April–September 2005. Unpublished Northamptonshire Archaeology Report 06/57 (revised 2007).
- Thomas, J. 2008a Excavation of an Iron Age 'aggregated' settlement at Manor Farm, Humberstone, Leicester. Unpublished report 2008-133, University of Leicester Archaeological Services.
- Thomas, J. 2008b Excavation of an Iron Age settlement adjacent to Beaumont Leys Lane, Beaumont Leys, Leicester. Unpublished report 2008-114, University of Leicester Archaeological Services.
- Thomas, J. (forthcoming) *Iron Age 'aggregated' settlements in the environs of Leicester. Excavations at Beaumont Leys and Humberstone*. Leicester Archaeology Monograph. Leicester.
- Van Arsdell, R.D. 1989 *Celtic coinage of Britain*. London. Spink.
- Williams, J.H.C. 2003 The coins and the helmet. *Current Archaeology* 188, 361–2.
- Willis, S. 2006 The Later Bronze Age and Iron Age (first millennium BC). In N. Cooper (ed.), *The archaeology of the East Midlands. An archaeological resource assessment and research agenda*, 89–136. Leicester Archaeology Monograph 13. Leicester.
- Woodward, A. and Hughes, G. 2007 Deposits and doorways: patterns within the Iron Age settlement at Crick Covert Farm, Northamptonshire. In C. Haselgrove and R. Pope (eds), *The earlier Iron Age in Britain and the near Continent*, 185–203. Oxford. Oxbow.

Stempelgleiche Frühlatène-Keramik zwischen Traisental und Neusiedlersee

Manuel Zeiler, Peter C. Ramsel, Erzsébet Jerem und J.V.S. Megaw

Vorwort

Es ist mein doppeltes Anliegen, einerseits dem Gefeierten die herzlichsten Glückwünsche unseres Autorentams weiterzuleiten, andererseits zugleich zu erklären, warum wir ihn mit einem gemeinsamen Aufsatz ehren möchten.

Während meiner mehr als 25jährigen Freundschaft mit Barry gab es unter uns vielleicht kein einziges Gespräch, in welchem wir nicht die zwei magischen Namen *Rathgall* und *Sopron* erwähnt hätten. Die Erforschung beider Fundorte bildete einen wesentlichen Teil unseres Lebens, zuerst die langjährigen Ausgrabungen und dann die Aufgabe, die wichtigen Ergebnisse und die enorme Fundmenge vollständig zu publizieren. Mit zunehmendem Alter sind wir immer sorgenvoller geworden und mussten nicht nur den wachsenden Zeitdruck und unerwartete gesundheitliche Problemen wahrnehmen, sondern auch über eine vernünftige Lösung nachdenken, wie man diese hervorragenden Projekte trotz der unterschiedlichen Schwierigkeiten weitertreiben könnte. Was Sopron-Krautacker betrifft, bin ich schon vor einigen Jahren darauf gekommen, dass die Aufarbeitung eines langjährigen Grabungsprojektes nur im Teamwork, in Zusammenarbeit mehrerer Fachleute, sinnvoll sein kann. Die komplexe, auf mehrere Zeitabschnitte bezogene Problematik und die interdisziplinären Forschungsansätze benötigen die Mitwirkung von spezialisierten Kollegen. Deshalb übernahm eine aus mehr als zehn Personen bestehende deutsch-ungarische Forschergruppe die Aufgabe, die Funde und Befunde der mehrphasigen Siedlung und des anschließenden spätbronze- und eisenzeitlichen Gräberfeldes für die monographische Bearbeitung vorzubereiten. Manuel Zeiler aus Marburg ist ein Mitglied dieses Teams, der zuerst seine Magisterarbeit der Töpferei von Sopron widmete und sich nun in seiner Doktorarbeit mit der mittel- und spätlatènezeitlichen Siedlung vom Krautacker beschäftigt.

Peter C. Ramsel, unser Kollege aus Wien, arbeitet sowohl räumlich als auch zeitlich in den Nachbargebieten und publizierte die Funden von zwei Gräberfeldern, wovon auch die hier behandelten Gefäße bzw. Vergleichstücke stammen. Noch wichtiger ist seine kontinuierliche Mitwirkung bei den

Keramikanalysen, was im Titel unseres Artikels zum Ausdruck kommt. Wegen der zahlreichen Gemeinsamkeiten in der erwähnten Region liegt ein Gedankenaustausch auf der Hand, wie er auch diesem Aufsatz zugrunde liegt.

Als J.V.S. Megaw vom Gegenstand unserer Arbeit erfuhr, hat er sich bereit erklärt, seine stilistischen Bemerkungen zu dem behandelten Stempelmuster beizusteuern.

Schließlich bot sich mir die ausgezeichnete Gelegenheit, mich zu einem meiner Lieblingsthemen—zur frühlatènezeitlichen stempelverzierten Keramik, wozu ich schon eine ganze Reihe von Vorarbeiten geleistet habe—äußern zu dürfen, bzw. einige neue Gedanken zu deren Herstellung und Verbreitung aufzuwerfen zu können. Wir hoffen alle, dass unser Beitrag unserem Freund Freude bereiten wird.

E.J.

Sopron-Krautacker¹

Nordwestlich von Sopron auf der Flur Krautacker wurden begleitend zur Anlage einer Wohnsiedlung (Jereván lakótelep) vom Archäologischen Institut der Ungarischen Akademie der Wissenschaften/Budapest zwischen 1973 und 1988 umfangreiche Grabungen unter der Leitung von E. Jerem durchgeführt und dabei zahlreiche Grab- und Siedlungsobjekte freigelegt (Abb. 1).

Die Bedeutung dieses Fundplatzes ergibt sich aus der Größe der aufgedeckten Fläche (c. 2 ha), aus der Vergesellschaftung einer Siedlung mit dazugehörigen Gräberfeldern, aus der eisenzeitlichen Platzkontinuität beginnend in Ha D (Jerem 1987, 92; 1981, 108) bis in die Spätlatènezeit (Jerem 2003, 197) sowie aus dem Vorhandensein von fünf zum Teil außerordentlich gut erhaltenen Töpferöfen der Früh- bis Mittellatènezeit (Jerem 1984a, 57ff; 1984b, 85; Jerem/Kardos 1985, 65; Jerem, Kardos *et al.* 1985; Jerem, Balla *et al.* 1998), aus deren Produktion zahlreiche stempelverzierte Gefäße stammen. Zu ihnen gehört auch die Wandscherbe Inv.-Nr. 93.3.126.1 mit einem kommaförmigen Stempelmotiv (Abb. 2).

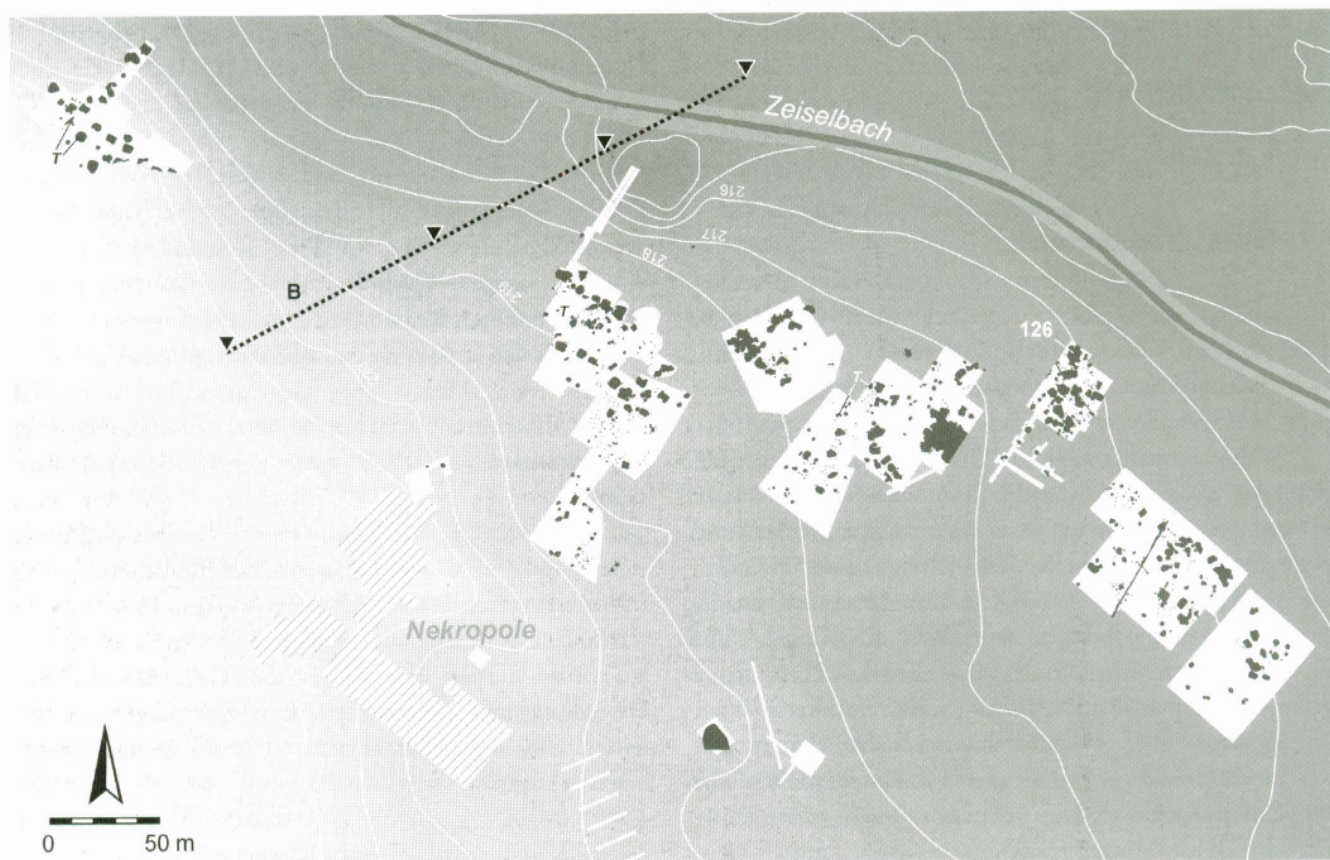


Abb. 1—Topographie der Fundstelle Sopron-Krautacker. Weiße Flächen: Grabungsschnitte. — Schwarze Flächen: Siedlungsbefunde aller nachgewiesenen Zeitepochen. — B: Transekte (Bohrprofil) — 126: Lage des Befundes 126. — T: Töpferöfen.



0 2 cm



0 2 cm

Abb. 2—Sopron-Krautacker: Flaschenfragment Inv.-Nr. 93.3.126.1 und vergrößerter Ausschnitt der Stempelabdrücke.

Der Befund 126, aus dem die Scherbe stammt, liegt am äußersten Rand des Grabungsschnittes (Abb. 1). Er wurde 1980 samt seinem Umfeld untersucht, wobei ein kreuzförmiger Schnitt angelegt, seine gesamte Fläche jedoch nicht erfaßt werden konnte (Abb. 3). Die Ausdehnung des ergrabenen Objektes beträgt *c.* 8m x 5m, die Sohle lag stellenweise 120cm unterhalb der rezenten Oberfläche. Der Grundriß ist unregelmäßig, möglicherweise handelt es sich um einen Komplex mehrerer Gruben.

Das Objekt liegt im östlichen Bereich des ergrabenen Siedlungsareales, *c.* 30m vom heutigen Verlauf des Zeiselbachs entfernt (Abb. 1). Es handelt sich um den Akkumulationsbereich eines zum Gewässer abfallenden Hanges, der nordwest-südost, bzw. nord-süd streicht und vor Grabungsbeginn bis zu 23° geneigt war (Österreichische Karte 1:25000 V, Blatt 107). Zur Deutung des Befundes und der aus ihm geborgenen Artefakte ist zum einen der Akkumulationsgrad ausschlaggebend: Die Reliefenergie war an dieser Stelle in prähistorischer Zeit größer als vor Grabungsbeginn. Eine Bohrsondage *c.* 200m nordwestlich des Befundes (Abb. 1), läßt die Rekonstruktion größerer Reliefunterschiede und massiver Erosionsvorgänge zu. Dort bedecken am Hangfuß bis zu 50cm mächtige Kolluvien mit eingelagerten Artefakten einen bis *c.* 30m breiten Saum entlang des Bachs, der zum Teil unterhalb des heutigen Flußniveaus verläuft (Jerem, Facsar *et al.* 1984, 146). Die eingesedimentierten Artefakte im Kolluvium zeigen, dass die Reliefveränderung frühestens mit dem Beginn der Siedlung einsetzte, was bedeutet, dass die prähistorischen Hänge etwas steiler zu rekonstruieren sind und dass zum Grabungszeitpunkt schon eine umfangreiche Bodenverlagerung stattgefunden hatte. Die Erosionstiefe kann am Ober- und Mittelhang der Siedlung anhand der dort erhaltenen Töpferöfen, von denen bei dreien noch die Lochtenne erhalten war, auf mindestens 50cm unterhalb des eisenzeitlichen Laufniveaus geschätzt werden.

Neben der erosionsbedingten Fundumlagerung sowie Störung der Befunde ist die Siedlungsintensität von Bedeutung: Das betroffene Areal wurde besonders während der Urnenfelderzeit, der Eisenzeit und schwächer im Neolithikum sowie im Mittelalter genutzt, wodurch sich zahlreiche Befunde verschiedener Zeitstellung überlagern. Befund 126 wird von mehreren Gruben geschnitten (Bef.-Nr. 124, 126a und 127; Abb. 3): Bef. Nr. 124 ist eine árpádenzeitliche Grube (Gömöri 2002, 150). Das Fundmaterial der benachbarten Befunde 126a und 127 läßt sich zeitlich nicht ansprechen.

Dem Kreuzschnitt wurden aus einer Tiefe zwischen 30cm und 40cm mehrere eisenzeitliche Kleinfunde entnommen: Darunter befindet sich das Fragment eines glatten Saproelitararmringes mit oval-flachem Querschnitt (Abb. 4, 1). Er läßt sich wegen des Innendurchmessers von 4,5cm allenfalls als Kinderschmuck, Kleiderbesatz oder Haarschmuck deuten und kann aufgrund der schwach gewölbten Innenseite des Ringes in die Früh- oder Mittellatènezeit datiert werden (Rochna 1974, 167; Frauengräber 127 und 138 von Maňa, Benadik 1978, 413, und Benadik 1983, Taf. 50, 4, Taf. 55, 18; Grube 601a von Manching mit Fibel und Vertreter der Keramikphase 1, Lorenz 2004, 74, Taf. 72, 15 u. 16). Früh- bis spätlatènezeitlich ist ein Scherenfragment mit dem Ansatz eines u-förmigen Bügels, geradem Rücken und schräg zur Spitze verlaufender Schneide (Abb. 4, 2).

557 Scherben stammen aus dem Befund 126, wovon aus 137 Stücken (diagnostische Rand- und Bodenfragmente, seltener Wandscherben) 119 Gefäßeinheiten rekonstruiert werden können. Starke Fragmentierung ist kennzeichnend: Eine Gefäßeinheit besteht zumeist aus nur einer Scherbe, und aus der prozentualen Erhaltung der Gefäßränder errechnet sich eine Mindestindividuenzahl von lediglich 3,26. Im Fundspektrum überwiegen handaufgebaute Scherben, die aufgrund ihrer geringeren Härte in der Regel kleinteiliger zerbrochen sind als die scheibengedrehte Ware. Deswegen können mehr Gefäßeinheiten aus scheibengedrehten Scherben rekonstruiert werden, die das Formenspektrum dominieren.

Handaufgebaute Gefäßbruchstücke sind vorwiegend kleinteilige und ausbiegende Ränder mit einfacher Randlippe. Während der Rand einer Einzugsrandschale und ein Wandbruchstück mit Knubbe chronologisch unsensibel sind, weist ein stark ausbiegender und innen mehrfach facettierter Rand in die Urnenfelderzeit (Abb. 4, 5). Innerhalb der typologisch auswertbaren scheibengedrehten Keramik des Befundes überwiegen Wulstrandtöpfe, von denen hauptsächlich die kammstrichverzierten graphitgemagert und nicht hart gebrannt sind (Härte nach Mohs: 3–4). Sie sind typisch in der späten Früh- sowie in der Mittellatènezeit, wogegen eine ohne Graphitzusatz gemagerte, härter gebrannte Wandscherbe Vertreter eines spätlatènezeitlichen Feinkammstrichgefäßes mit Glättverzierung sein könnte.

Ein scheibengedrehtes Wandungsfragment (Abb. 4, 5) läßt an ein Etagengefäß denken. Es findet ähnlich stark profilierte Analogien im Lt B1-zeitlichen Etagengefäß aus

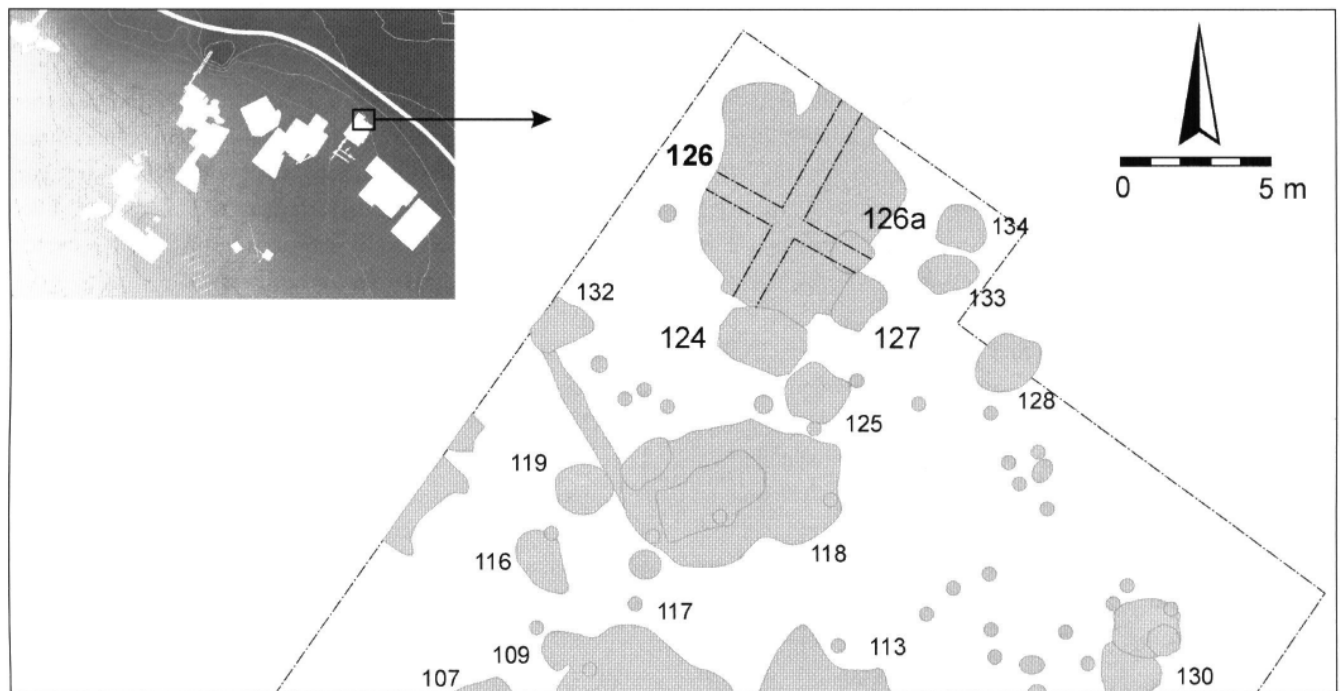


Abb. 3—Sopron-Krautacker: Befund 126 im Siedlungskontext.

Hügel C in Ramsen, Rheinland-Pfalz (Kriesel 1978, Taf. 85B) bzw. in der Gefäßbeigabe von Grab 109 aus Maňa/Kraj Nitra (Benadik 1983, Taf. 39, 2). Letztgenanntes Grab ist beraubt und kann daher nur grob in die Stufen Lt B2 oder C1 geordnet werden.

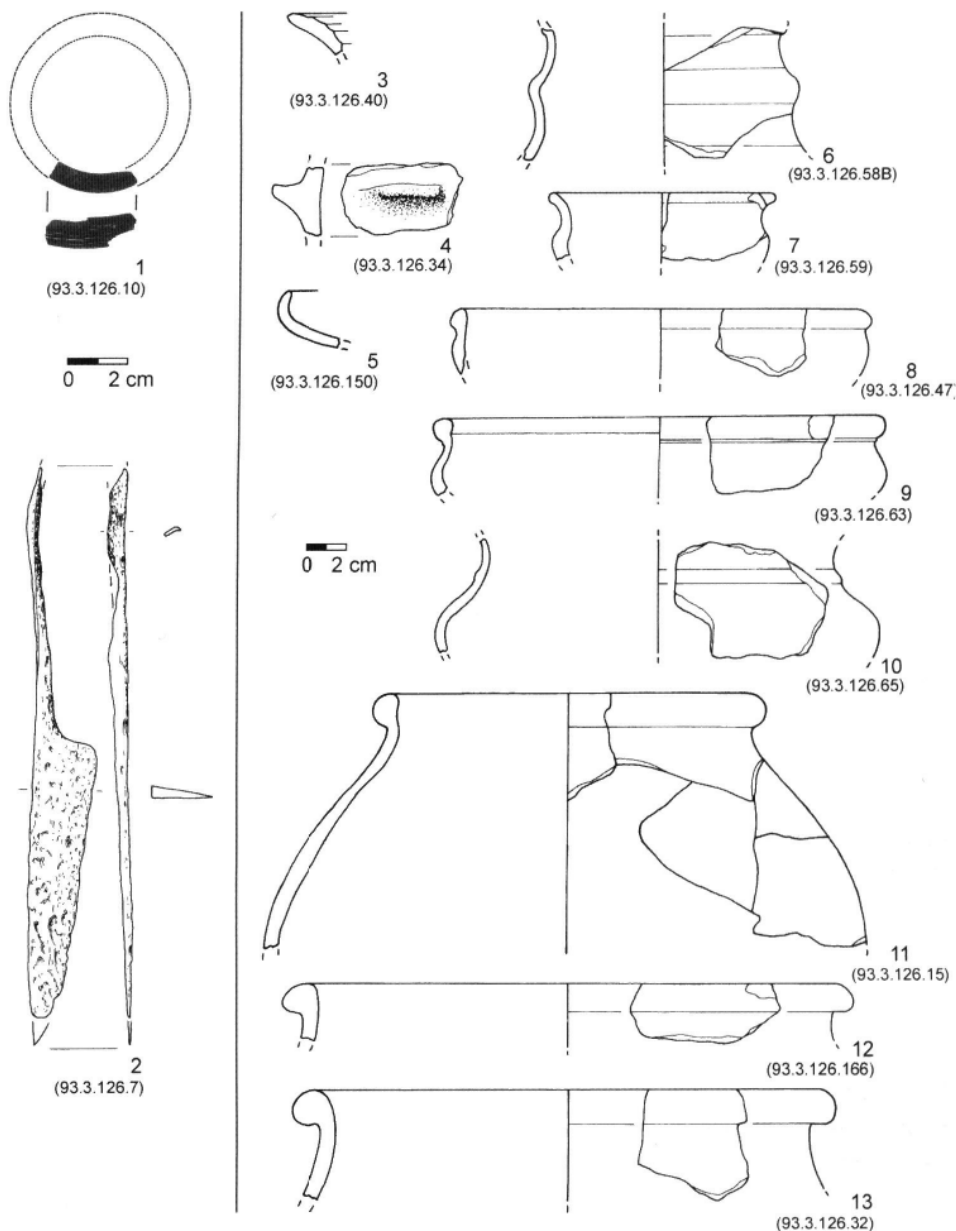
Zusammenfassend ist für Befund 126 festzustellen, dass es sich nicht um einen geschlossenen Befund handelt. Der überwiegende Anteil des datierbaren, eingefüllten Fundmaterials ist in die Früh- bis Mittellatènezeit zu stellen. Ein urnenfelderzeitliches Randfragment und große Mengen handgemachter sowie kleinteiliger Scherben, die sich allerdings nicht typologisch bestimmen lassen, weisen auf die Einfüllung umgelagerten Materials verschiedener Zeitstufen hin.

Das eingangs erwähnte stempelverzierte Gefäßfragment ist das Bruchstück eines scheibengedrehten Gefäßes mit langer Schulter, das oberhalb des Schulter-Bauchumbruchs mit zwei und am Übergang zum Gefäßhals zumindest mit einer 3mm breiten, umlaufenden Rille verziert ist. Der von den Rillen begrenzte Zwischenraum auf der Schulter ist durch drei gleiche kommaförmige Ornamente ausgefüllt, die übereinander eingestempelt wurden (Abb. 2). Die Form der Vertiefung läßt an ein Kelchblatt einer Lotosblüte denken, die erhaben gestalteten Partien gleichen dagegen stark

verkürzten Palmetten. Die Scherbe stellt das Bruchstück einer Flasche dar, deren Ton fein gemagert war: Entsprechend *c.* 62% (*n* = 11531) aller scheibengedrehten diagnostischen Scherben am Krautacker finden sich bei dem stempelverzierten Stück eine gleichmäßig geschichtete Matrix und nur wenige, gerade noch mit dem bloßen Auge erkennbare Magerungspartikel. Die plastische Masse wurde bei oxidierender Brennatmosfera gebrannt und weist heute eine Härte von 3–4 nach Mohs auf. Dieser Härtegrad ist bei den scheibengedrehten Gefäßeinheiten zu *c.* 36% vertreten. Die technischen und formalen Eigenschaften heben sich somit insgesamt nicht vom Gesamtspektrum ab und lassen sich auch gut mit unzweifelhaft vor Ort hergestellten Fehlbränden vergleichen. Trotz fehlender mikroskopischer Analyse ist somit der Herstellungsort des stempelverzierten Gefäßes am Auffindungsort anzunehmen.

Das kommastempelverzierte Gefäß gehört zur Gruppe scheibengedrehter Flaschen der Siedlung am Krautacker, deren Gefäßwandung sowohl an der Hals-Schulter-Übergangszone als auch am unteren Schulterabschnitt bzw. am Übergang zum Gefäßunterteil umlaufende Rillen aufweist. Der hohe Zerscherungsgrad des keramischen Fundstoffs der Siedlung erlaubt nur die detaillierte Ansprache von sieben weiteren Gefäßfragmenten gleicher

Abb. 4—Sopron-Krautacker: Funde aus Befund 126. 1: Sapropelit. 2: Eisen. 3–13: Keramik.



Form und Rillenverzierung. Die Schulterwandungen sind gerade bis konkav, in zwei Fällen lassen sich ein tiefer Gefäßschwerpunkt, eine abgesetzte Standfläche sowie ein Mündungsdurchmesser feststellen, der größer als der Standflächendurchmesser ist. Unter diesen Stücken findet sich ein kleinteiliges Fragment aus Bef.-Nr. 356, das mehrfach stempelverziert ist und dem oben besprochenen Stück aus Befund 126 stilistisch nahe steht: Zwischen den Rillen am Schulter-Hals-Übergang wurden Stempleindrücke mit länglich-ovalem, flächig eingetieftem

Rahmenfeld sowie erhabenem S-Motiv angebracht. Zwischen den Rillen am unteren Schulterabschnitt dieses Gefäßfragmentes wurde ebenfalls ein erhabenes Ornament (laufender Hund) angebracht. Hierbei wurde jedoch ein in der Herstellung weniger aufwändiger Hakenstempel verwendet (Jerem, Balla *et al.* 1998, Abb. 7).

Während umlaufende Verzierungen auf dem Rand-Schulter-Übergang und auf der unteren Schulter bei scheibengedrehten Flaschen oder flaschenartigen Gefäßen der Siedlung üblich sind, ist die Ausführung allein mit Rillen

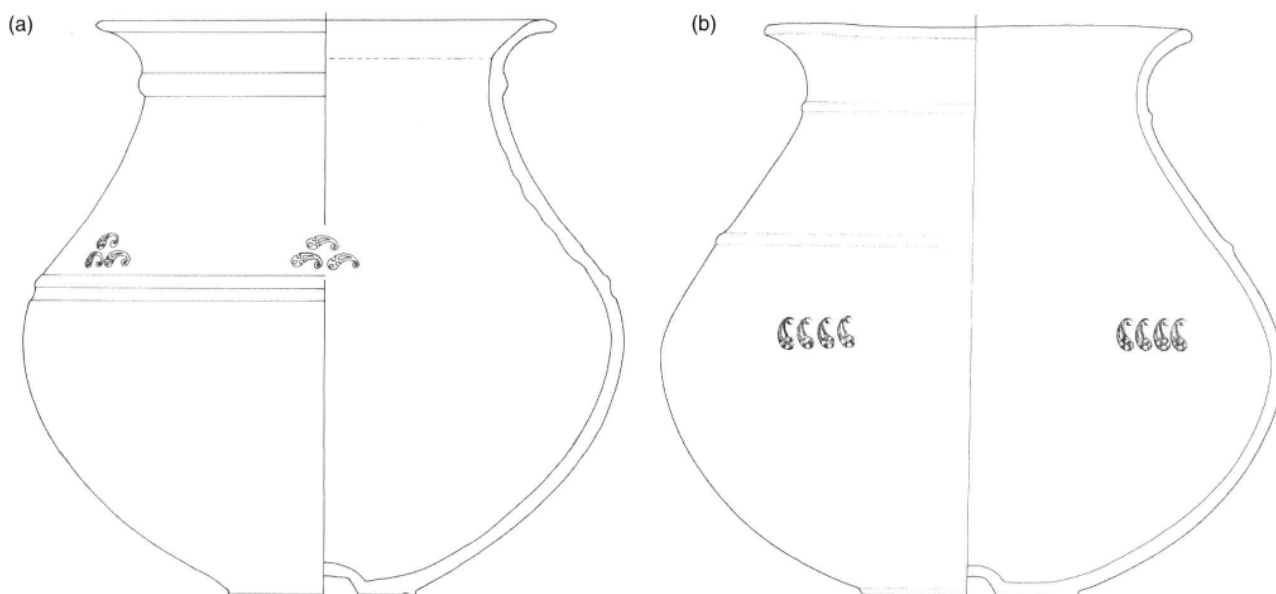


Abb. 5a—Flaschenförmiges Gefäß, Neunkirchen, Rohrbacherstraße (Zeichnung: P. C. Ramsil).

Abb. 5b—Flaschenförmiges Gefäß, Mannersdorf Nr. 184 (Zeichnung: M. Imam).

im Gegensatz zu Kombinationen aus Rillen mit umlaufender Rippe oder ausschließlich Rippen eine Seltenheit. Die Befundobjekte, aus denen die angesprochenen Gefäßfragmente geborgen wurden, sind über den westlichen Teil des ergrabenen Areals verstreut.

Flaschen, die dieses Verzierungsprinzip aufweisen, finden sich als Gefäße in Gräbern des Raums zwischen Traisental und Donauknien und datieren von Lt B1 bis B2, wobei zwei Lt B1-zeitliche Gefäße aus Frauengräbern von Ménfőcsanak und Pöttösching (Pöttösching Grab 26: Jerem 1984, Abb. 12, 3 und 14; Ménfőcsanak Grab 16: Uzsóki 1987, Taf. 17, 9) den Soproner Stücken am nächsten stehen. Demnach kann das Soproner Stück in die Stufe Lt B1 gerückt werden. Insbesondere das Pöttöschinger Gefäß, welches durch S-Stempel charakterisiert ist, leitet zu einer von E. Jerem 1984 begonnenen Diskussion über: Sie stellte die Stempelgleichheit des S-Motivs auf besagter Flasche aus Pöttösching unter anderem mit dem Flaschenfragment aus Befund 356 vom Krautacker fest und diskutierte als gemeinsamen Produktionsort die Töpferei von Sopron-Krautacker (Weitere stempelgleiche Stücke: Etagengefäß von Hidegség; Flasche Grab 127 der Nekropole von Mannersdorf; Schalenfragment Bef.-Nr. 100 von Sopron-Krautacker; Jerem 1984, 68).

Die stempelgleichen Gefäße, sowohl mit dem S-Stempel als auch mit dem Komma-Stempel, können von derselben Person gefertigt worden sein. Ob diese jedoch ausschließlich in Sopron Gefäße fertigte, ist nicht zu belegen: Das kommastempelverzierte Gefäß aus Sopron Bef.-Nr. 126 wurde sehr wahrscheinlich in Sopron hergestellt, das stempelgleiche Stück aus Mannersdorf dagegen in der Nähe des Fundortes.—Neben einer Produktion, die von einem Standort aus die Region versorgte, ist daher auch mit einer mobilen Herstellung von Gefäßen zu rechnen: Der oder die Handwerker fertigten an mehreren Orten ihre Ware und hielten sich dort jeweils nur zeitweise auf. Vorstellbar sind Wandertöpfer, wie sie von R. Hampe und A. Winter auch noch im 20. Jh. für den Mittelmeerraum beschrieben wurden (Hampe/Winter 1962, 13). Bei ihren Wanderzügen stachen die Töpfer nahe der jeweiligen Produktionsstätten den Ton ab, den sie später zur plastischen Masse weiter verarbeiteten. Die eisenzeitlichen Spezialisten könnten sich in einem Gebiet bewegt haben, welches dem Verbreitungsbild stempelgleicher Komma- und S-Ornamente entspricht: Es handelt sich um den Raum zwischen Traisental und Neusiedler See.

M.Z.

Mannersdorf, Neunkirchen und Pottenbrunn²

Im Rahmen der Aufarbeitung des latènezeitlichen Gräberfeldes Mannersdorf am Leithagebirge in Niederösterreich (FWF P12577-G02) und weiterreichender Untersuchungen zum Migrationsverhalten der damaligen Bevölkerung (APART 10/2001) wurden die Keramikverzierungen der genannten Nekropole einer Analyse unterzogen. Dabei konnten, ausgehend vom Gefäß Fnr. 4 aus Grab 184, weitere drei Keramikfragmente bzw. Gefäße mit stempelgleichen Abdrücken aufgespürt werden. Neben der genauen Gegenüberstellung der durch Abdrücke gewonnenen Stempelform sowie Keramikanalysen können neue Thesen über die Keramikproduktion in der Region vom Traisental im Westen bis ins Soproner Gebiet im Osten aufgestellt werden.

In diesem Teil sollen Fundgeschichte und Funde vorgestellt werden:

1) Neunkirchen

Das flaschenförmige Gefäß wurde zwischen dem 25.–27. März 1935 im „*Keltengrab X*“ gefunden. Diese bekannte Gräbergruppe war in der Josef Berr-Straße (Parzelle 599/2) in Neunkirchen zutage getreten. Das Gefäß konnte Dank der Vermittlung von Mag. Martin Penz und Dr. Michalea Kronberger, beide Wien Museum, dort entdeckt und aufgenommen werden. Ursprünglich war dieses Gefäß unter „Wien XIII, Rohrbacherstraße“ inventarisiert (in Rams 2007 damals noch als Wien XIII publiziert). Auf dem erhaltenen Fundzettel ist jedoch kein Fundort angegeben, und es gibt auch sonst keine Angaben über Befunde und weitere Funde dieses Gräberfeldes. Bei der Recherche (alte Planskizzen) stellte sich heraus, dass sowohl bei den Gräbern von Neunkirchen als auch Wien XIII die Parzellennummer 599 angegeben ist. Auch heißt die Querstraße zur Josef Berr-Straße in Neunkirchen ebenfalls Rohrbacherstraße. Weiters sind auf den Fotos von Grab 10 zwei flaschenförmige Gefäße zu sehen, im Inventar ist aber nur eines zu finden. Diese Indizien weisen darauf hin, dass dieses Gefäß zu Grab 10 von Neunkirchen gehört.

Beschreibung:

Flaschenförmiges Gefäß, scheibengedreht, dunkelbraune Oberfläche, abgesetzter Boden mit Omphalos, nach außen gewölbter Unterteil, runder Bauchumbruch, kurze, konische Schulter, leicht gekehlter, konischer Hals, ausladender Rand

mit leicht verdicktem Mundsau; knapp oberhalb Bauchumbruch Riefe, gleich anschließend schmaler Wulst, oberhalb 6 Gruppen mit je drei, in Dreiecksform angeordneten, liegenden fischblasenförmigen Stempeln, verjüngter Teil nach rechts schauend, H 26,2cm, Msdm 21,2cm, Bdm 8,6cm, Ws 0,4–0,8cm, Omphalosdm 3,2cm. (Abb. 5)

2) Mannersdorf am Leithagebirge, Niederösterreich (Rams in Druck)

Neben c. 20 Gräbern zwischen 1905–1912 wurden in Flur Reinthal Süd von 1976 bis 1984 vom Museum Mannersdorf durch Heribert Schutzbier, Friedrich Opferkuh und dem Bundesdenkmalamt neben Gräbern der Frühbronze- und Spätbronzezeit insgesamt 96 Körper und Brandgräber der Früh- und Mittelatènezeit ausgegraben (Schutzbier 1976–7; Melzer 1978–84). Ein Teil der Grabgruben war von kreisförmigen und quadratischen Grabgärten umgeben, wobei manchmal mehrere von ihnen zu Gruppen zusammengewachsen waren. Vielfach konnten auch steinerne Auskleidungen und Steinpackungen beobachtet werden.

Grab 184 mit der stempelverzierten Keramik liegt am Südostrand des sich NW–SO erstreckenden Gräberfeldes in Flur Reinthal Süd.

Grab 184: trapezförmiger Grabschacht mit der Bestattung eines 41–60 jährigen Individuums

Befund: In 0,38–0,92m Tiefe eine 1,80m x 0,60m große Steinsetzung aus Leithakalksteinen innerhalb einer 2,15m x 1,00m großen Erdverfärbung. Bestattung: In 0,97m Tiefe eine W–O-orientierte Körperbestattung in gestreckter Rückenlage. Vom Skelett nur noch Röhrenknochenfragmente erhalten. Lage der Funde: Oberhalb des Schädels drei Tongefäße – Fnr. 3, 4 und 5, neben rechten Brustknochen einige Tierknochen – Fnr. 2, bei den Füßen Fragment einer Eisenfibel – Fnr. 1. Funde: Fnr. 1: Eisenfibel, Fnr. 3–5 Flaschenförmige Gefäße.

Beschreibung von Fnr. 4 (Abb. 6):

Flaschenförmiges Gefäß, scheibengedreht, grauockerfarbener Ton, feingeschlämmt, außen teilweise geglättet, innen waagrecht spatelgeglättet, mittel gebrannt, kleiner Omphalos, abgesetzte Standfläche, flachkonisch gewölbter Unterteil, gewölbter Bauchumbruch, hohe, steilkonische Schulter, kurzer, annähernd senkrechter, gekehlter Hals, ausladender Rand, Randabschluß außen



Abb. 6—Flaschenförmiges Gefäß, Pottenbrunn Nr. 1005 (photo: P. C. Rams!).

zweifach gekantet, in einem Abschnitt schwach eingedrückt. Oberhalb des Bauchumbruchs sechs Gruppen von jeweils vier geschwungenen fischblasenförmigen, in sich profilierten Stempelungen (dünneres Ende oben), darüber zwei umlaufende Rillen, auf Schulter umlaufende Leiste, am Hals umlaufende Leiste, H 25,6cm, Msdm 18,9–19,3cm, Bdm 9,8cm, Omphalosdm 6,8cm, Ws 0,4–0,6cm.

3) Pottenbrunn, Niederösterreich (Rams! 2002)

Neben einigen Gräbern, die von J. Bayer 1930 geborgen wurden, konnte der überwiegende Teil des Gräberfeldes vor dem Bau der Schnellstraße S33 und des Neubaus der Straßenmeisterei St. Pölten/Nord in der Flur Steinfeld ergraben werden. Diese vom Bundesdenkmalamt, (J.-W. Neugebauer) durchgeführten Grabungen brachten im Jahr 1981 auf der Fläche des zu bauenden Südzubringers südlich der Bundesstraße B1 u.a. (Neugebauer/Gattringer 1981, 166) zwei Brandgräber der Hallstattkultur und acht Körpergräber der Frühlatènezeit, darunter drei Doppelbestattungen, zutage, nördlich der Straße drei Brand- und fünfzehn Körperbestattungen der frühen Latènezeit.

1982 folgten bei weiteren vorbeugenden Grabungen zwei Körper- und acht Brandbestattungen (Neugebauer/Gattringer 1982).

Mann kann also von insgesamt 42 Grabbauten bzw. 45 Bestattungen ausgegangen werden. Grab 1005 befindet sich am nordöstlichen Ende des SW–NO verlaufenden Gräberfeldes.

Grab 1005: Männerbestattung im Brandritus

Befund: Planum 1—Grabgrube: annähernd kreisförmig, Dm. 135cm, als Verfüllung: humoses, wenig schottriges Material, an der Südseite eher schottrig. Planum 2 (58cm unter Planum 1)—Grabgrube: annähernd kreisförmig, Dm. 130cm, Verfüllung: im S-Teil schottrig, in der Mitte humos-schottrig, im N-Teil fein humos. Planum 3 (entspricht Grabsohle; 66cm unter Planum 1)—Grabgrube: unregelmäßig kreisförmig, 110cm x 95cm, Orientierung: O–W, als Verfüllung humoses, wenig schottriges Material, in der N-Hälfte fein humos und stark mit Holzkohle durchsetzt.

Lage der Beigaben: Ungefähr in der Mitte der Grube eine Schale Fnr. 9 und ein flaschenförmiges Gefäß Fnr. 10, südlich davon Tierknochen Fnr. 3, eine eiserne Lanzenspitze Fnr. 13, darunter zwei Eisenfibeln Fnr. 4 und 14 und ein Schleifstein Fnr. 6 mit einem Eisenmesser Fnr. 5, sowie eine Bronzefibel Fnr. 8. Nördlich der Gefäße ein verbogenes Eisenschwert Fnr. 7. Im Bereich der Holzkohle noch Reste von einem flaschenförmigen Gefäß, einer Schale und einer Schüssel Fnr. 2, sowie ein Eisenmesser Fnr. 15 und zwei Nietköpfe Fnr. 12.

Beschreibung von Fnr. 10 (Abb. 6):

Flaschenförmiges Gefäß, scheibengedreht, Bruch grau, fein steingemagert, Oberfläche rot-braun, abgesetzter Boden mit Omphalos, gewölbter Unterteil, runder Bauchumbruch, kurze konische Schulter, konischer Hals, anfangs annähernd senkrechter, dann mittel ausladender Rand, Mundsaum leicht verdickt; 2 Rillen knapp oberhalb Umbruch, danach 5 halbmond bis peltaförmige Stempel mit scheibenförmigen Ausnehmungen, danach wiederum Rille, oberhalb dieser 5 Gruppen mit je fünf hakenförmigen Stempeln (verjüngtes Ende unten), Halswulst, H 20,8cm, Msdm 19,0cm, Bdm 10,6cm, Omphalosdm 4,8cm, Ws 0,4–0,6cm.

Infolge der Auswertung des Gräberfeldes von Mannersdorf/Lgb. wurde die Ähnlichkeit der Stempel auf den drei vorgestellten Gefäßen erkannt und weiter analysiert.



Abb. 7—Vergleich der 4 Stempelindrücke (N-MD-SK-POT) (photos: P. C. Rams).

Auch der Abdruck aus dem Fragment aus Sopron-Krautacker war dem Autor bekannt. So konnten Photos und Abdrücke sowohl von den Stempelabdrücken von Neunkirchen, Pottenbrunn, Mannersdorf und Sopron Krautacker gemacht werden (Abb. 7).

Keramikanalysen:

Von den Stücken aus Pottenbrunn, Mannersdorf und Neunkirchen wurden Dünnschliff- und Schwermineralanalysen angefertigt. Das Stück aus Sopron-Krautacker konnte nicht beprobt werden, jedoch wurden zahlreiche andere Keramiken aus Sopron beprobt und Analysen angefertigt.

Dabei zeigte sich „...im Verhältnis zu Sopron (...) eine vorläufige grobe Auswertung, dass die Proben aus Mannersdorf im Vergleich zu den Proben aus Sopron eine größere Streuung der Scherbentypen zeigen. Die Proben aus Sopron scheinen bemerkenswert homogen zusammengesetzt zu sein. Sie wurden überwiegend aus marinen Rohstoffen erzeugt (vermutlich Badener Tegel). Die genauen Ergebnisse der Analysen des Materials aus Sopron sollen erst später separat mitgeteilt werden.

Im Material von Mannersdorf lassen sich nur relativ wenige Stücke wirklich mit größeren Scherbentypen aus Sopron vergleichen (am ehesten die Scherbentypen A2–A3). Ähnliche Rohstoffe sind sowohl im Bereich von Sopron als auch bei Mannersdorf lokal anstehend. Auffallend ist aber, dass sich die Scherbentypen aus marinen Rohstoffen von Mannersdorf und Sopron in der Textur offenbar meist eindeutig unterscheiden.

Zur genauen Interpretation der Herkunft der verwendeten Rohstoffe, müßten aber noch Vergleichsuntersuchungen an vor Ort anstehenden Rohstoffproben, besonders bei Sopron durchgeführt werden.“ (Untersuchung R. Sauer, OMV).

Die Proben aus Pottenbrunn und Neunkirchen unterscheiden sich sowohl stark voneinander als auch von denjenigen von Mannersdorf und Sopron. Daher ist festzustellen, dass es sich um Rohstoffe unterschiedlicher Herkunft handelt.

Datierung:

An dieser Stelle soll die Datierung der Gräber, in denen die drei hier beschriebenen Stücke gefunden wurden, neu aufgerollt werden.

Grab 10 aus Neunkirchen enthält außer dem besagten Gefäß noch ein flaschenförmiges Gefäß (Fnr. 1), ein situlenförmiges Gefäß mit einer Schulterleiste aus Schrägkerben (Fnr. 2) sowie ein kleines Omphalosschälchen (Fnr. 3). Weiters wurden ein Fingerring (Fnr. 17?), ein Bronzearmreif (Fnr. 3), die Reste eines Hohlreifes aus Bronze (Fnr. 9?) sowie drei Eisenringe (Fnr. 1) und das Fragment eines Bären(?)zahnes (Fnr. 16) und weitere Eisenfragmente (Fnr. 14) gefunden. Aufgrund dieser Beifunde kann das Grab in Lt B1 gestellt werden.

In Grab 184 aus Mannersdorf sind für die genaue Datierung leider auch nur wenige Ansatzpunkte zu finden. So zeigt die Eisenfibel Fnr. 1 aufgrund des kurzen Fußteiles eventuell eine Tendenz zum Ende der Stufe Lt B1 (B1c?).

In Grab 1005 aus Pottenbrunn finden sich neben dem stempelverzierten Gefäß Fnr. 10 vor allem gut datierbare Artefakte wie ein Schwert vom Typ Hatvan-Boldog/Münsingen (Fnr. 7), eine Fibel mit scheibenförmiger Fußzier mit gedellter Blechauflage und einer 2x3 Spannung (Fnr. 4), eine Fibel mit vergrößerter, kugelförmiger Fußzier, verdicktem Bügel und einer 2x3 Spannung (Fnr. 14) und eine kleine Fibel mit gerilltem Bügel ohne Fuß (Fnr. 8). Dieses Grab wurde in der Monographie des Gräberfeldes auch aufgrund des Vergleichs mit den Gräbern 854, 855 und 975 in die Stufe Lt B1b/B2a gestellt (Ramsl 2002, 147). Allerdings wurde aufgrund der nur 2x3 Spannungen der in allen vier Gräbern vorkommenden Fibeln auch an eine Datierung in eine knapp ältere Stufe (also B1a/b) gedacht. Neuere Erkenntnisse (Bujna 2003) bestätigen diese Ansätze. So entspricht Pottenbrunn Fnr. 4 dem Typ BF-D1-C (Lt B1b) und Fnr. 14 dem Typ EF-C1 (Lt B1a-b) nach J. Bujna (Bujna 2003, Obr. 14 und Obr. 38).

Vergleich:

Vergleicht man die Artefakte von Mannersdorf, Pottenbrunn, Neunkirchen und Sopron formmäßig miteinander, so muß letzteres aufgrund der Tatsache, dass es sich nur um ein Fragment und nicht um ein annähernd vollständiges Gefäß handelt, in der Betrachtung der Gefäßformen außer Acht gelassen werden.

Schon beim ersten Vergleich fällt auf, dass sich die Gefäße aus Neunkirchen (N) und Mannersdorf/Lgb. (MD) sehr ähneln. Hat N eine Höhe von 25,5cm und einen Mundsauddurchmesser von bis zu 19,3cm, so mißt MD bei diesen Werten 26,2cm und 21,2cm. Auch die Formgebung dieser beiden Gefäße ist überaus ähnlich, wie allein ein Blick auf die neben einander stehenden Gefäße (Abb. 8a, 8b) beweist. Pottenbrunn fällt mit einer Höhe von 20,8cm und einem Mundsauddurchmesser von 19cm etwas aus der Reihe. In der Grundform gleichen sich jedoch alle drei Exemplare. Auch in der Gestaltung (eher kugelige Grundform, Halswulst, abgesetzter Boden mit Omphalos und Schulterleiste und eben die Stempelzier) weisen N und MD viele Parallelen auf.

Auf der anderen Seite sind Ähnlichkeiten bei der Gestaltung von Sopron-Krautacker (SK) und Pottenbrunn (POT) zu beobachten. Hier werden (soweit sichtbar) jeweils drei Rillen (mit der Stempelzier) zur Gestaltung der Schulter verwendet.

Der Stempel ist ein (in der Grundform) fischblasenförmiger oder kommaförmiger Stempel.

Betrachtet man das Motiv im Detail, so ist eine innere Struktur zu erkennen. Am dickeren Enden befinden sich drei annähernd quadratische Ausnehmungen, die in Dreiecksform angeordnet sind, darauf folgt eine langgezogene, tropfenförmige Ausnehmung. Die Gesamtform endet in einem aus dem Ende herauslaufenden, eingerollten Haken.

Anordnung (Abb. 9):

Die Stempel befinden sich auf dem Gefäß aus Mannersdorf (mit dem dickeren Ende nach unten) in mehr oder minder regelmäßigen Abständen umlaufend in sechs Gruppen auf der Schulter des Gefäßes. Dabei handelt es sich bis auf eine Ausnahme (3 Stempel) um Vierergruppen. Diese Ausnahme mag eventuell die Schauseite des Gefäßes darstellen.

Bei Neunkirchen handelt es sich um 6 Gruppen mit je drei, in Dreiecksform angeordneten, liegenden Stempeln auf der Schulter.

Pottenbrunn besitzt 5 Gruppen mit je fünf hakenförmigen Stempeln (verjüngtes Ende unten nach links zeigend).

In Sopron-Krautacker ist nur eine Scherbe mit drei übereinander gestellten, mit dem verjüngtem Ende nach links schauend, erhalten.

Erhaltung:

Zum Erhaltungszustand der Stempel (aufgrund der erhaltenen Stempelabdrücke) ist folgendes zu sagen:

- Der Stempel aus Neunkirchen ist annähernd vollständig erhalten. Allein die seitlichen Wände des dickeren Endes könnten ev. abgenutzt bzw. ausgebrochen sein.
- Bei Sopron und Mannersdorf ist zu beobachten, dass das äußerste Ende der Schlinge des verjüngten Endes bereits ausgebrochen ist. Der Abdruck aus Sopron ist insgesamt besser erhalten, was aber an der Härte der Keramik liegen mag, die in Mannersdorf nur als weich und seifig zu beschreiben ist. Sopron ist hingegen etwas härter (Mohs 3–4) gebrannt.
- Schließlich zeigen bei Pottenbrunn 1005 die Abdrücke deutlich, dass der Stempel an allen Kanten abgenutzt und abgeschliffen ist. Dadurch sind die Abdrücke auch kleiner, nur die innere Struktur ist vergleichbar. Die Schlinge am dünneren Ende ist endgültig abgebrochen. Die weitere Interpretation (z.B. Werkstatt) kann erst nach der vollständigen Keramikanalyse erfolgen. P.C.R.

a



b



Abb. 8a—Vergleich: Neunkirchen und Mannersdorf 184 (photo: P. C. Ramsli).

Abb. 8b—Vergleich: Mannersdorf 184 und Pottenbrunn 1005 (photo: P. C. Ramsli).



Abb. 9—Anordnung der Stempel (photos: P. C. Rams, M. Zeiler—ohne Maßstäbe).

Anmerkungen zu stilistischen Fragen

Während einige Schriften von Frank Schwappach—Skizzen für die Hauptstudie, die leider nie abgeschlossen wurde (Schwappach 1971; 1974; 1975; 1976; 1979)—wesentlich sind, hat das letzte halbe Jahrhundert auch die Publikation einiger anderer Studien gestempelter frühlatènezeitlicher Tonwaren gesehen.

Vornehmlich liegt das Schwergewicht, wie die Funde von Niederösterreich zeigen, auf gestempelten Tonwaren nicht ganz feiner Qualität, die aus Siedlungsfundstellen stammen.

Diese Studien haben in unterschiedlicher Länge die verschiedenen Regionen abgedeckt—einige davon wurden bereits in diesem Artikel zitiert (Březinová 2002; Golánová 2006; Jerem 1974–5; Linksfeiler 1978; Megaw und Megaw 2006; Müller und Müller 1977; Tappert 2006, bes. 98–106).

Eine der faszinierendsten (möglicherweise ist „frustrierenden“ ein besseres Wort) Eigenschaften der frühlatènezeitlichen gestempelten Tonwaren ist, dass die

Methode der Dekoration, das Eindringen des Motivs mit einem entweder knöchernen oder metallenen Werkzeug in die Oberfläche eines Topfes vor dem Brand, es erlauben sollte, identische Stempel zu identifizieren.

In Wirklichkeit gibt es jedoch mit Ausnahme des an dieser Stelle vorgestellten Stempels nur einen einzigen weiteren mir bekannten komplizierten Stempel, von welchem man aufgrund vorsichtiger Prüfung behaupten kann, dass er sich auf mehr als einem Gefäß findet.

Der Stempel—ein weiterer Beitrag zur Diskussion über das Lyrasymbol, die wir vor kurzem anderswo geführt haben (Megaw und Megaw 2006, 375–8)—wurde auf zwei Gefäßen aus Befunden der LT B2-C1 Siedlung und dem Flachgräberfeld bei Sajópetri- Hosszú-dűlő, Borsod-Abaúj-Zemplén m./ nordöstliches Ungarn, verwendet.

Die zwei Gefäße, die von nur 15m voneinander entfernten Fundstellen stammen, zeigen den Gebrauch eines c. 15mm großen Stempels mit einem gegenübergestellten S- oder Lyra-Muster mit vier kleinen erhabenen Knöpfen in den Zwischenräumen (Szabó 2007, 243 und Abb. 49) (Abb. 10).

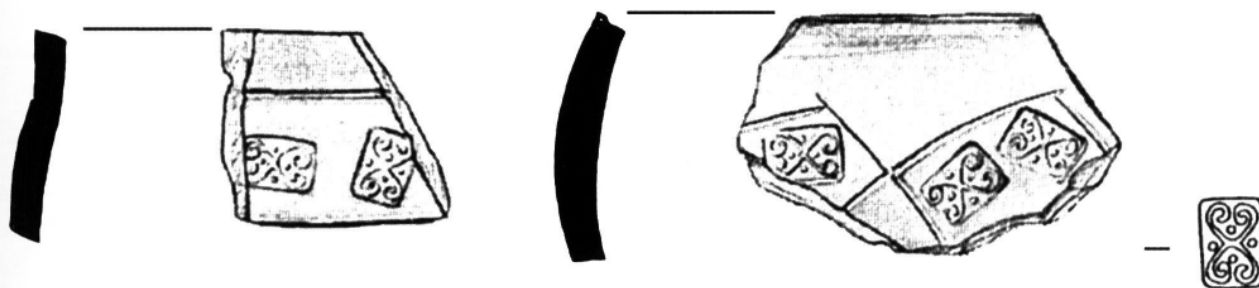


Abb. 10—Sajópetri — Hosszú-dűlő, Borsod-Abaúj-Zemplén m. Gestempelte Scherben (links) Verf. 03.B.73 und (rechts) Verf. 02.B.20. Höhe des Stempels c. 15mm (Zeichnung: nach Szabó 2007).



Abb. 11—'Obří Pramen', Lahošť bei Duchcov, okr. Teplice. Detail des Bronzereifens Höhe c. 15mm (Zeichnung: nach Megaw 1965–6).

Es gibt zwar keine exakte Parallele zu den beiden Lyrastempeln, die in unserem Artikel zitiert werden, noch ist sie zu erwarten. Wir geben aber bereitwillig zu, dass unsere Liste ähnlicher Beispiele bei weitem nicht komplett ist.

Die gestempelten österreichischen und ungarischen Gefäße kommen, wie bemerkt worden ist, in einem verhältnismäßig eingeschränkten Gebiet vor, was auf ein lokales Handelsnetz hinweist.

Demgegenüber wurde eine Variante einer der gängigsten dekorativen Elemente in der frühen keltischen Kunst—das 'Komma-Blatt/comma-leaf', von Jacobsthal im Rahmen der Analyse floraler Verzierung (Jacobsthal 1944, besonders 83–84 und pp 315–20)—besprochen.

Schwappach lokalisiert die Pflanzenornamente im Frühen Stil in der westlichen Zone—obwohl er mitteleuropäische Beispiele anführt (Schwappach 1976, Abb. 12–15). Wir argumentierten bereits anderswo, dass die Hypothese Schwappachs, einer Teilung der frühen La Tène-Kunst in eine westliche und eine östliche Kunstprovinz,

schwierig nachzuvollziehen ist (Megaw 1985, 170–82).

Was unseren Komma-Blatt-Stempel herausragen läßt, ist die Art, wie der Innenraum des Kommas gestaltet ist. Ein einzelner kreisförmiger Eindruck bildet das gebogene Endstück, während der Körper durch einen großen und zwei kleinere Diamanten gebildet wird, von denen ein großer Tropfen entspringt.

Es scheinen rein abstrakte Elemente dargestellt worden zu sein, von denen es in der frühen keltischen Kunst anscheinend nur sehr wenige gibt.

Seit Jacobsthal das erste Mal die Cheshire Cat in die Ausführungen über keltische Kunst eingeführt hat—die Gestaltungsart, in welcher anscheinend Abstraktes als natürliche Form und teilweise auch als menschlicher Kopf (Jacobsthal 1944, 19) gelesen werden kann—wurde das Prinzip weiterentwickelt. Teilweise finden wir es im „Pflanzen-, oder Waldalgesheimstil, der in Lt B1 beginnt—der Periode der großen Expansion von La Tène-Gemeinschaften (Megaw 1970; Lenerz-de Wilde 1982; Frey

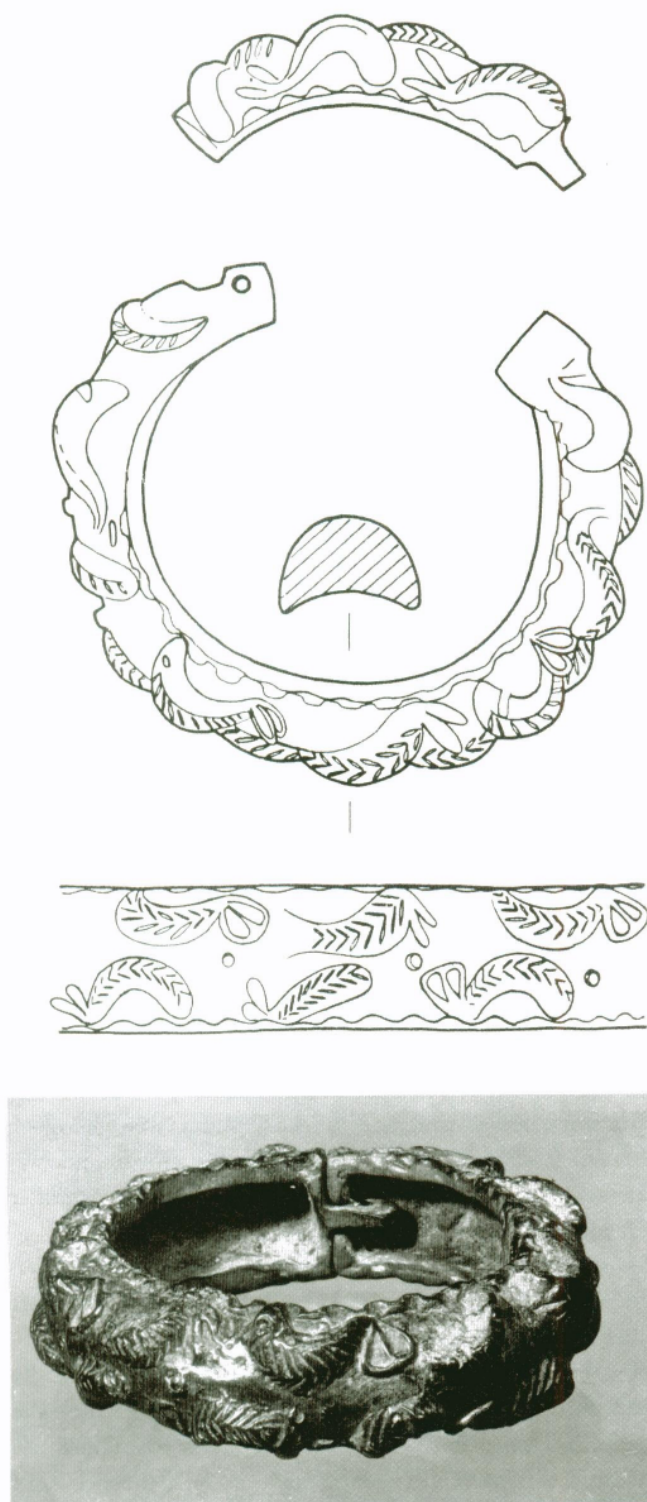


Abb. 12—Křinec-Zábrdovice, okr. Nymburk, Grab 1. Gegossener Bronzereif. Dm. 80mm (Zeichnung: nach Sankot 1991; photo: Národní Muzeum v Praze).

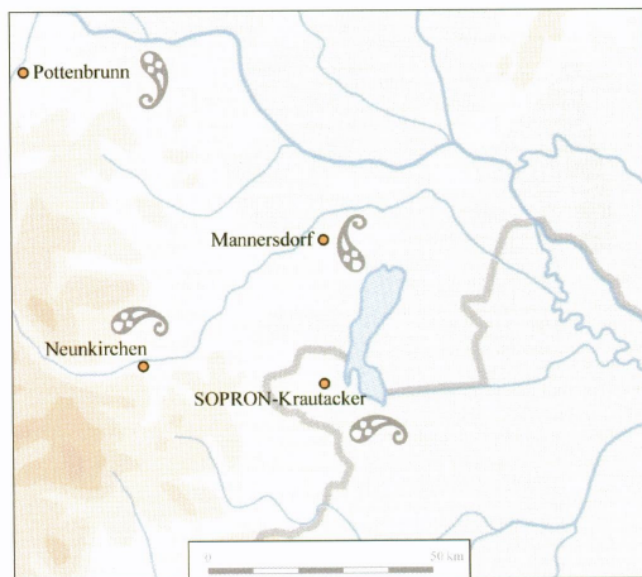


Abb. 13—Verbreitung der Komma-Stempel zwischen Traisental und Neusiedlersee (Entwurf: E. Jerem; Zeichnung: S. Ősi, Archäologisches Institut der UAW, Budapest).

1996) in den Osten—während Szabó (1993) es auf die mittellatènezeitlichen dekorierten Schwertscheiden des Karpatenbeckens ausweitete, also auch auf das Gebiet und den Zeitabschnitt, in den unsere gestempelten Gefäße gehören.

Vor diesem Hintergrund ist die Form unserer Stempel nochmals zu betrachten. Sie lassen nicht nur ein abstraktes Blumenmotiv, sondern vielmehr ein stilisiertes menschliches Gesicht erkennen.

Daher ist zu einer Thematik zurückzukehren, die wir erstmals vor 40 Jahren im Bezug auf LT B1-Arm- und Halsringe ansprachen. Auf jenen können aus einfachsten geometrischen Formen—zwei oder drei Kreise und ein Sparren oder ein Dreieck—Gesichter geformt worden sein (Megaw 1965–66, esp. 134–42 und Taf. 11; 1967). Scheint dies auch zu phantasievoll, so gibt es doch zwei eindeutige Exemplare, die als animiertes Komma angesprochen werden können. Das erste ist ein Bronzearmreif mit flachem Querschnitt von der berühmten Quelldéponierung von Obří Pramen bei Lahost nahe Duchcov (Dux), okr. Teplice.

Er ist unglücklicherweise nicht mehr nachweisbar—und von uns fälschlicherweise als Fingerring identifiziert (Megaw 1965–6, cat. no. 5; for correction see Kruta 1971, 56). Der Körper der individuell angeordneten antithetischen Elemente ist vergleichbar mit unserem Tonwarenstempel mit einem fest gekräuselten Ende. Es ist zu vermuten, dass dieses Ornament auf Keramik schon seit längerer Zeit angebracht wurde. (Abb. 11).

Das große Auge und das offensichtliche Fehlen eines Mundes läßt an Kaulquappen denken.

Was es auch immer sein mag, eine naturalistische und dreidimensionale Ausführung liegt im gegossenen und zu öffnendem Armreif aus dem Lt C1 Kriegergrab aus Křinec-Zábrdovice, okr. Nymburk, Grab 1 (Břeň 1965; Kruta 1975, 69–70 und pl.16:1; Sankot 1991, 431 und Abb. 23) vor (Abb. 12).

Es kann Křinec folgend diskutiert werden, dass die Darstellung eines Lachses, wie es Kruta vorschlägt, oder eines Delphins, wie von Sankot bevorzugt, eine typische Dekoration im Donaubecken des 3. Jahrhunderts v. Chr. ist.

Aber was auch immer die Absicht ihrer Hersteller war, so stehen diese zwei Bronzen am Ende der linearen stilistischen Weiterentwicklung, die mit dem einfachen Kommablatt begann und sich während der vieldeutigen Stilisierung unserer Tonstempel entwickelte.

Gleichzeitig sollte das Verwenden von verwandten Formen bei der Verzierung von Metallgegenständen und Keramik beachtet werden. (Megaw und Megaw 2006, bes. Abb. 2).

Diese Spekulationen beiseite lassend, können wir zu einem Punkt zurückkommen, den wir am Anfang dieser Anmerkung formuliert haben.

Während beim Studium der höher entwickelteren Formen der gestempelten Tonwaren noch viel zu tun bleibt, ist es doch bemerkenswert, dass, während einfache Formen eher in Siedlungszusammenhängen vorkommen, die Mehrzahl der komplexer verzierten Gefäße—wie die erwähnen Lyra-Motive—aus Gräber stammt, so auch im Fall der hier diskutierten Töpfe.

Es gibt wenig, was in der Deutung der frühen keltischen Kunst sicher ist. Dass eine Bedeutung in den einfachen Mustern lag, dessen können wir jedoch sicher sein.

J.V.S. M.

Zusammenfassende Überlegungen

Der Komma- oder Fischblasenstempel mit Durchbruchverzierung stellt eine unikale Form dar, die abgesehen von den hier präsentierten vier Gefäßen bis jetzt sonst nirgendwo vorkommt. Es ist auf jeden Fall erwähnenswert, daß die Töpfer in Sopron auch diesmal solche Stempel verwendet haben, die ähnlich wie die mit anderen Motiven (S-Motiv, Haken bzw. Winkel und Wirbel) verzierten Stempel, worunter einige mit erhabenem

Ornament vorkommen, nur im Zusammenhang von Metallverzierungen zu interpretieren sind. Dies bezieht sich nicht ausschließlich auf die Abstammung der Motivschätze und auf bewußte Nachahmung von besonders im Waldalgesheim-Stil verzierten Gegenständen (u.a. Schwerter), sondern auch auf die Verwendung von toreutischen Werkzeugen bei der Fertigstellung der einzelnen Stempel, seien sie aus Metall oder aus Knochen gestaltet. Es ist zu vermuten, daß solche Instrumente bei der Verzierung der Töpferprodukte auch direkt benutzt wurden, was die Anwesenheit von Feinschmieden mindestens ab Lt B1 an der Siedlung Sopron-Krautacker verständlich macht. Es sei hier auch bemerkt, daß auf Lotus- bzw. Palmettenmotiven basierende Komma Stempel, genau so wie die früher publizierten plastischen S-Stempel auf ovalem Hintergrund, nur in Sopron als Siedlungsfunde belegt sind; sonst stammen alle stempelgleichen Vergleichsstücke aus Gräbern. Obwohl unter den hier behandelten stempelverzierten Flaschen die Exemplare von Neunkirchen und Sopron—wegen der Stempelqualität und Dreieranordnung—am nächsten zueinander stehen, müssen wir aber auch darauf aufmerksam machen, daß im Gräberfeld von Mannersdorf zwei Flaschen aus den Gräbern 127 und 184 vorkamen, die mit drei solchen speziellen Stempeln verziert waren, die mit den Soproner Exemplaren völlig identisch sind. Dies beweist eine für einige Zeit bestehende sehr intensive Kommunikation zwischen den beiden Fundorten, was noch durch die Bestattungssitte und andere Gemeinsamkeiten untermauert werden kann. Wir haben schon sowohl auf die Rolle der wandernden Handwerker als auch auf die durch die Verbreitung der einzelnen Stempelmuster faßbare Größe der territorialen Einheiten hingewiesen, innerhalb derer mobile Töpfer und Feinschmiede sich bewegt haben konnten. Es läßt sich ein engerer Umkreis mit einem Radius von 30–40km zwischen dem Leithagebirge und dem Neusiedlersee rekonstruieren und eine etwas breitere Zone, die mindestens sich vom Traisental bis Sopron erstreckte (Abb. 13). Unsere Hypothese über die Bedeutung der Töpferei in Sopron wurde nun durch neue Aspekte bestätigt und ebenfalls eine rege Interaktion zwischen den vorgestellten Fundorten bzw. deren Bevölkerung bewiesen. Wie gesagt, die stilistischen Betrachtungen und die ersten Keramikanalysen zeigen zwar wichtige Fortschritte in Erweiterung unserer Kenntnisse über frühlatènezeitliches Handwerk und Produktionszentren an, aber sie müssen noch durch weitere sorgfältige Beobachtungen und vor allem durch moderne archäometrische Untersuchungen ergänzt

werden. Wir sind allerdings schon am Wege, den logistischen Prozeß von Rohstoffgewinnung, Tonaufbereitung, Formgebung, Verzierungs- und Brenntechniken bis zur Herstellung der Fertigprodukte richtig verstehen und nachvollziehen zu können. Die Autoren hoffen daß die detaillierte Analyse der stempelverzierten Keramik nicht nur unser Wissen von den wirtschaftsarchäologischen und historischen Aspekten des Geschehens im 4./3. vorchristlichen Jahrhundert bereichert, sondern auch die zukünftige Forschung motiviert.

E. J.

Noten

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Literatur

- Benadik, B. 1978 Keltisches Gräberfeld. Maňa. *Slovenska Archeologia Bratislava* 26 (2), 383–422.
- Benadik, B. 1983 *Maňa keltisches Gräberfeld*. Materialia Archaeologica Slovaca 5. Nitra.
- Břen, J. 1965 Laténsky kostrový hrob x Křince u Nymburká. *Časopis Národního musea* 134, 146–54.
- Březinová, G. 2002 Vyzdobné motívy na keramike z laténskeho sídliska v Nitre-Šindolke. *Študijné Zvesti Archeologického Ústavu Slovenskej Akadémie Vied* 35, 203–12.

- Bujna, J. 2003 Fibeln aus keltischen waffenlosen Gräbern aus dem Gebiet der Slowakei (Typologisch-chronologische Gliederung der LTB- und C1-Fibeln). *Slovenská Archeológia* 51 (1), 39–108.
- Frey, O.-H. 1996 Zu den figürlichen Darstellungen aus Waldalgesheim. In T. Stöllner (ed.), *Europa Celtica: Untersuchungen zur Hallstatt- und Latènezeit*, 95–115. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 12. Espelkamp. Verlag Marie Leidorf.
- Golánová, P. 2006 Několik poznámek k vL'zdoobnym motivum na kolkované keramice. *Pravěk NR* 16 (2007), 125–48.
- Gömöri, J. 2002 *Castrum Surpon—Sopron vára és környéke az Árpád-korban. Die Burg von Sopron (Ödenburg) in der Árpádenzeit*. Sopron Szabad Királyi Város.
- Hampe, R. and Winter, A. 1962 *Bei Töpfern und Töpferinnen in Kreta, Messenien und Zypern*. Bonn (Mainz). Habelt.
- Jacobsthal, P.F. 1944 *Early Celtic art*. Oxford. Clarendon Press. [Reprinted with corrections, 1969.]
- Jerem, E. 1974–5 Stempelverziertes frühlatènezeitliches Gefäß aus Écs. *Mitteilungen des Archäologischen Instituts* 5 (1976), 45–57.
- Jerem, E. 1981 Zur Späthallstatt- und Frühlatènezeit in Transdanubien. In C. und A. Eibner (eds), *Die Hallstattkultur. Bericht über das Symposium in Steyr 1980 aus Anlaß der Internationalen Ausstellung des Landes Oberösterreich*, 105–36. Eds. Land Oberösterreich Amt der OÖ. Landesregierung, Abteilung Kultur. Linz.
- Jerem, E. 1984a An early Celtic pottery workshop in north west Hungary. Some archaeological and technological evidence. *Oxford Journal of Archaeology* 3 (1), 57–80.
- Jerem, E. 1984b Kelta fazekaskemencék Sopronban = Celtic pottery kilns in Sopron. In J. Gömöri (ed.), *Iparrégészeti = Industrial archaeology II. Proceedings from the 2nd Conference on Industrial Archaeology held in Veszprém, Hungary, on August 9–11, 1982*. Veszprém. VEAB Értésítő.
- Jerem, E. 1987 Die ältesten Körperbestattungen im Osthallstattkreis. *Mitteilungen der Österreichischen Arbeitsgemeinschaft Wien* 37, 91–9.
- Jerem, E. 2003 The Late Iron Age: the Celts of the La Tène period. In Zs. Visy (ed.), *Hungarian archaeology at the turn of the millennium*, 192–200. Budapest. Ministry of National Cultural Heritage.
- Jerem, E. and Kardos, J. 1985 Entwicklung und Charakter

- der eisenzeitlichen Graphittonware. *Mitteilungen der Österreichischen Arbeitsgemeinschaft für Ur- und Frühgeschichte* 35, 65–75.
- Jerem, E., Balla, M. and Balázs, L. 1998 Early Celtic stamped pottery in the eastern Alpine area: workshop activity and trade. In L. Költő and L. Bartosiewicz (eds), *Archaeometrical research in Hungary II*, 85–95. Budapest/Kaposvár/Veszprém.
- Jerem, E., Facsar, G., Kordos, L., Krolopp, E. and Vörös, L. 1984 A Sopron-Krautackeri vaskori telep régészeti és környezetrekonstrukció vizsgálat. *Archaeológiai Értesítő* 111, 141–69.
- Jerem, E., Kardos, J., Kriston, L., Morozová, O., Träger, T. and Zimmer, K. 1985 Scientific investigations of the Sopron-Krautacker Iron Age pottery workshop. *Archaeometry* 27 (1), 83–93.
- Kriesel, O. 1978 *Zur vorgeschichtlichen Besiedlung des Kreises Kirchheimbolanden (Pfalz)*. Veröffentlichungen der Pfälzischen Gesellschaft zur Förderung der Wissenschaft in Speyer 66. Speyer.
- Kruta, V. 1971 *Le trésor du Duchcov dans les collections tchécoslovaques*. Ústi nad Labem. Severočeské Nakladatelství.
- Kruta, V. 1975 *L'art celtique en Bohême: les parures métalliques du Ve au IIe siècle avant notre ère*. Bibliothèque de l'Ecole des Hautes Etudes IVe section, 324. Paris.
- Lenerz-de Wilde, M. 1982 Le 'style de Cheshire Cat': un phénomène caractéristique de l'art celtique. In P.-M. Duval and V. Kruta, *L'art celtique de la période d'expansion: IVe et IIIe siècles avant notre ère*, 101–14. Hautes études du monde gréco-romain 13. Genève/Paris. Librairie Droz.
- Linksfeiler, D. 1978 Die stempelverzierte Keramik in Böhmen und Mähren. *Archäologische Informationen* 4, 82–108.
- Lorenz, H. 2004 *Chorologische Untersuchungen in dem spätkeltischen Oppidum bei Manching am Beispiel der Grabungsflächen der Jahre 1965–1967 und 1971*. Die Ausgrabungen in Manching 16. Stuttgart. Franz Steiner Verlag.
- Megaw, J.V.S. 1965–6 Two finger rings in the Victoria and Albert Museum, London: an essay on the human face and early Celtic art. *Prähistorische Zeitschrift* 43–4, 96–166.
- Megaw, J.V.S. 1967 Ein verzierter Frühlatène-Halsring im Metropolitan Museum of Art, New York. *Germania* 45, 50–9.
- Megaw, J.V.S. 1970 Cheshire cat and Mickey Mouse: analysis, interpretation and the art of the La Tène Iron Age. *Proceedings of the Prehistoric Society* 36, 261–79.
- Megaw, J.V.S. 1985 Meditations on a Celtic hobby-horse: notes towards a social archaeology of Iron Age art. In T. C. Champion and J. V. S. Megaw (eds), *Settlement and society: aspects of west European prehistory in the first millennium B.C.*, 161–91. Leicester University Press.
- Megaw, J.V.S. and Megaw, M.R. 2006 Strike the lyre: notes on an eastern Celtic motif. *Acta Archaeologica Academiae Scientiarum Hungaricae* 107, 367–93.
- Melzer, G. 1978–84 Mannersdorf am Leithagebirge. *Fundberichte aus Österreich* 17 (1978), 289–91; 18 (1979), 406–10; 19 (1980), 454–8; 20 (1981), 440–5; 21 (1982), 263–4; 22 (1983), 268–9; 23 (1984), 270–1.
- Müller, R. and Müller, D.W. 1977 Stempelverzierte Keramik aus einem Randgebiet der Keltiké. *Alt-Thüringen* 14, 194–243.
- Neugebauer, J.-W. and Gatringer, F.A. 1981 Die Kremser Schnellstraße S 33. Vorbericht über Probleme und Ergebnisse der archäologischen Überwachung des Großbauvorhabens durch die Abt. f. Bodendenkmale des Bundesdenkmalamtes. *Fundberichte aus Österreich* 20, 157–90.
- Neugebauer, J.-W. and Gatringer, F.A. 1982 Die Kremser Schnellstraße S 33. *Fundberichte aus Österreich* 21, 63–85.
- Ramsl, P.C. 2002 Das eisenzeitliche Gräberfeld von Pottenbrunn. Forschungsansätze zu wirtschaftlichen Grundlagen und sozialen Strukturen der latènezeitlichen Bevölkerung des Traisental, Niederösterreich. *Fundberichte aus Österreich*, Materialheft A 11.
- Ramsl, P.C. 2007 Die latènezeitlichen Nekropole von Mannersdorf am Leithagebirge, Flur Reinthal. *Studia Hercynia* XI, 51–6, pls 22–31.
- Ramsl, P.C. (in press) *Das latènezeitliche Gräberfeld von Mannersdorf am Leithagebirge, Flur Reinthal Süd, Niederösterreich*. Studien zu Phänomenen der latènezeitlichen Kulturerscheinung, Mitteilungen der Prähistorischen Kommission der Österr. Akademie der Wissenschaften.
- Rochna, O. 1974 Die Saproelit- und Gagatfunde vom Dürrnberg. In F. Moosleitner, L. Pauli and E. Penninger (eds), *Der Dürrnberg bei Hallein II*, 153–67. Veröffentlichungen der Kommission zur

- archäologischen Erforschung des spätrömischen Raetien der Bayerischen Akademie der Wissenschaften. München.
- Sankot, P. 1991 Motifs zoomorphes dans l'art laténien de la Bohême au IIIe siècle avant J.-C. *Etudes Celtiques* 28, 401–33.
- Schutzbier, H. 1976–7 Mannersdorf am Leithagebirge. *Fundberichte aus Österreich* 15 (1976), 231; 16 (1977), 378–80.
- Schwappach, F. 1971 Stempel des Waldalgesheimstils an einer Vase aus Sopron-Bécsidomb (West-Ungarn). *Hamburger Beiträge zur Archäologie* 1, 131–72.
- Schwappach, F. 1974 Zu einigen Tierdarstellungen der Frühlatènekunst. *Hamburger Beiträge zur Archäologie* 4, 103–40.
- Schwappach, F. 1975 Zur Chronologie der östlichen Frühlatène-Keramik. In J. Fitz (ed.), 'The Celts in Central Europe'. *Alba Regia* 14, 109–36.
- Schwappach, F. 1976 L'art ornamental du 'Premier style' celtique. In P.-M. Duval and C. F. C. Hawkes (eds), *Celtic art in ancient Europe: five protohistoric centuries—L'art celtique en Europe protohistorique*, 61–110. London/New York/San Francisco. Seminar Press.
- Schwappach, F. 1979 *Zur Chronologie der östlichen Frühlatène-Keramik/On the chronology of the eastern Early La Tène pottery. Die Keramik der Latène-Kultur 2.* Bad Bramstedt. Moreland Editions.
- Seracin, A. and Zehenthofer, M. 1916 Das Gräberfeld von Mannersdorf am Leithagebirge. *Wiener Prähistorische Zeitschrift* 3, 71–96.
- Szabó, M. 1993 Eléments anthropomorphes dans le décor des fourreaux danubiens. In J. Briard and A. Duval (eds), *Les Représentations humaines du néolithique à l'âge du fer. Actes du 115e congrès national des sociétés savants, Avignon 1990*, 271–86. Paris. Editions du Comité des Travaux Historiques et Scientifiques.
- Szabó, M. (ed.) 2007 *L'habitat de l'époque de la Tène à Sajópetri Hosszú-dűlő*. Budapest. L'Harmattan/ELTE.
- Tappert, C. 2006 *Die Gefäßkeramik der latènezeitlichen Siedlung Straubing-Baiuwarenstraße. Materialhefte zur bayerischen Vorgeschichte A 89*. Kallmünz/Opf. Laßleben.
- Uzsoki, A. 1987 Ménfőcsanak. In T. Kovács, É. Petres and M. Szabó (eds), *Corpus of Celtic finds in Hungary 1, Transdanubia*, 13–61. Budapest. Akadémiai Kiadó.

4. La Tène art

Janus in furs? Opposed human heads in the art of the European Iron Age

Ian Armit

'The severed human head is the most ancient talisman of mankind'

(Benoît 1975, 258)

The human head in La Tène art

La Tène art is usually regarded as primarily abstract in character, in marked contrast to the classical arts of the Mediterranean world. It seems, therefore, to lack any obvious narrative qualities (Megaw and Megaw 1989, 20). Nonetheless, as well as a variety of semi-abstracted plant motifs, La Tène art does contain figurative elements in the form of animal and human representations. Yet, while animals can often be represented as complete bodies, this is rarely the case for humans. Instead, it is the head alone that is usually present.

Although Paul Jacobsthal, the great pioneer of La Tène art studies, believed that the art was heavily symbolic and full of meaning, he attributed curiously little importance to these heads. For him, the ancient Celts told 'the tale of mythology . . . through zoomorphic disguise' (Jacobsthal 1944, 162) in which representations of people played no significant part. Instead, he saw the numerous human heads, faces or masks as simple decorative devices borrowed from Greek or Etruscan prototypes (*ibid.*, 12–24; Harding 2007, 38–9). La Tène remained, in its essentials, 'an art of ornament, masks and beasts, without the image of Man' (Jacobsthal 1944, 161).

An alternative view was set out by Pierre Lambrechts in his *L'exaltation de la tête dans la pensée et dans l'art des Celtes* (1954). Although dealing more widely with the supposed Celtic 'cult of the head', Lambrechts devoted a good deal of attention to the role of the human head in La Tène art, going so far as to describe it as the '*motif national*' of the Celts (1954, 20). Although accepting the ultimate Mediterranean derivation of the depictions seen on La Tène metalwork, Lambrechts believed that these images were so transformed and elaborated in the temperate European context that they must express a wholly indigenous symbolism. Later work, illustrating the range, complexity and subtlety of these

depictions, often semi-abstracted and merging with vegetal motifs, has tended to support Lambrechts's basic contention that the human head held a symbolic importance for the makers and users of La Tène (e.g. Almagro-Gorbea and Lorrio 1993; Megaw and Megaw 1993), even if his wider enthusiasm for a Celtic head-cult may not always be shared.

The opposed head motif

Human heads are found in a variety of contexts in La Tène art, variously arranged and often forming part of larger compositions. One specific, recurrent motif, however, is of particular interest and has been relatively little explored. This 'opposed head' motif is found, sporadically, on a number of items of La Tène metalwork ranging geographically and temporally from southern Germany in the fifth century BC to Wales in the first century AD. The motif comprises two human heads, typically joined at the chin, neck or crown. The heads are thus reflections, or transformations, of one another along the same axis. One can also find other arrangements, including occurrences of three or more heads within a single composition, as on, for example, the Manerbio disks (Megaw 1970, 130) or the *maskenfibel* from Slovenské Pravno (Megaw 1982). The opposed head motif, however, occurs sufficiently frequently to suggest that it bears some significance beyond a chance arrangement. In what follows I am not concerned with the typological relationships between the many and varied objects upon which opposed human heads are found, but rather with the recurrence and potential meanings of the motif itself. A few examples must suffice to give a flavour of its numerous manifestations.

On a La Tène A gold finger-ring from Rodenbach, in the German Rhineland, are shown two opposed heads set within a background of complex vegetal decoration (Jacobsthal 1944, pl. 52, no. 72; Megaw 1970, no. 56) (Fig. 1). The two faces are not obviously different, and each is surmounted by an arrangement of lotus buds and 'S'-shaped spirals. The central lotus bud is shared by the two heads. The ring probably dates from the latter part of the fifth century



Fig. 1—Gold ring from Rodenbach, in the German Rhineland. It is around 2cm in diameter (drawn by Dan Bashford, after Jacobsthal 1944, pl. 52, no. 72).

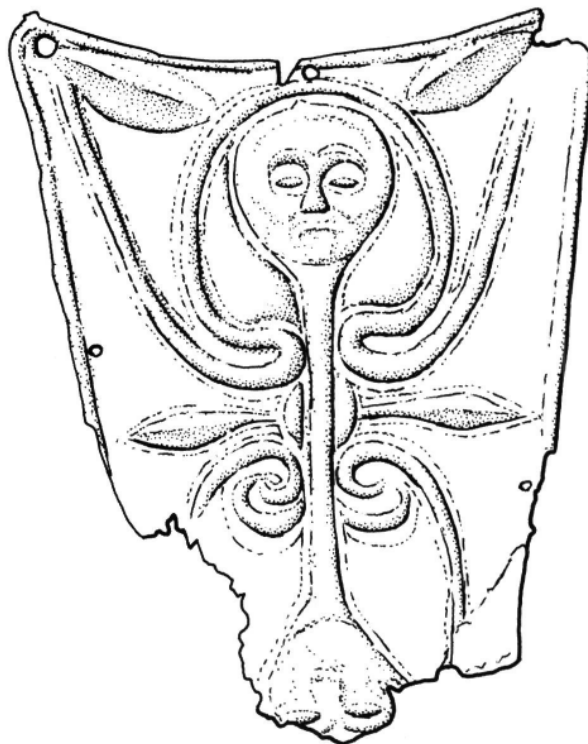


Fig. 2—Bronze mount from the Tal-y-Llyn hoard, Gwynedd. The mount is around 10.4cm wide (drawn by Dan Bashford).

BC, but we can see a strikingly similar depiction on a bronze arm-ring from La Charme, in the Champagne, more than a century later (Megaw 1970, no. 140). Here, a series of three sets of opposed heads, surmounted by spirals, are once again joined at the crown. The motif can also be found on La Tène A bronze fibulae, such as the one from Rappenau in southern Germany (Jacobsthal 1944, pl. 157, no. 309), and torcs, such as that from a late fourth- or early third-century BC grave in the cemetery at Courtisols, eastern France (Stead and Rigby 1999, no. 1711).

The motif also occurs in occasional insular contexts, for example at Tal-y-Llyn in Gwynedd, north Wales (Jope 2000, pl. 96) (Fig. 2). Bronze mounts from this site, probably dating from the turn of the first millennium, are decorated with two opposed human heads whose closed eyes and down-turned mouths suggest that they are intended as depictions of severed heads. This may further suggest that

the long, shared 'neck' is instead intended to be a stake, pillar or pike upon which they are displayed. Since the mounts most probably derive from a shield, the depiction of severed heads seems highly appropriate, whether as an aggressive or apotropaic symbol. There may, however, be more to the motif than that.

Heads and oppositions

The nature of the Tal-y-Llyn depictions suggests that the opposed head motif may have associations with death. Other examples of the motif are also suggestive of displayed severed heads rather than simple floating or disembodied 'masks'. I have argued elsewhere, for example, that the heads on the Courtisols torc appear to sit on small 'plinths' (Armit, in prep.), and a similar scenario can be suggested for the early



Fig. 3—Bronze mount from the Melsonby hoard, North Yorkshire, around 7cm long (photo: © the Trustees of the British Museum).

La Tène gold bracelet from Bad Dürkheim in the German Rhineland, where three sets of opposed heads, joined at the crown, appear to sit atop columns or pillars (Jacobsthal 1944, pl. 46, no. 57). The opposed head motif may thus have related quite specifically, in some cases at least, to the severed or disembodied human head. Consideration of some other examples of this and related motifs may, however, allow us tentatively to expand the nexus of symbolic associations.

Another, perhaps less obvious, insular example comes from the Melsonby metalwork hoard (probably originally deposited as part of a cremation burial) found near Stanwick, North Yorkshire (McGregor 1962; Megaw and Megaw 1989, 224–5). A group of small bronze mounts from the hoard, probably dating from the mid–late first century AD, depict highly stylised human heads. Although they have sometimes been interpreted as showing a single human face with a forked beard (e.g. Megaw 1970, 157; Jope 2000, 100), when seen in the broader context of the other opposed heads discussed here it seems more likely that their ‘reversibility’ was intentional. In each case the upper head, as shown here (Fig. 3), has large, wide-open lentoid eyes, which would originally have been given even more emphasis by

their enamel inlay. The lower head, by contrast, has its eyes closed. The initial implication seems to be that the heads symbolise two contrasting states, perhaps wakefulness and sleep. But the original context of the mounts, which seem to have adorned an iron-bound wooden bucket containing the cremated remains of a high-status Brigantian (Fitts *et al.* 1999), may rather suggest a contrast between life and death.

Moving away from opposed heads *sensu stricto*, I want also to consider two objects from the same artistic and cultural tradition that have certain conceptual similarities with the motif. These comprise two fragments of gold openwork, possibly originally parts of a single mount, from a late fifth- or early fourth-century BC grave at Bad Dürkheim in the German Rhineland (Fig. 4). Initially, these foil mounts appear to show youthful, clean-shaven faces, adorned with a ‘leaf-crown’. Turned around, however, they suddenly transform into rather glum-looking, bearded old men. Although differently executed, from one perspective we might regard these as the purest example of the opposed head motif, where the heads are not just joined but entirely merged. Like the Melsonby examples, the motif here, albeit in rather modified form, suggests a symbolic relationship between two contrastive states of being. Vincent Megaw has suggested that, if not a simple joke, the design may be intended to evoke contrastive states such as ‘male and female, youth and old age, sorrow and happiness’ (Megaw 1970, 68).

My final example from the corpus of La Tène metalwork again diverges from the conventional representation of the motif. An unusual La Tène A cast-bronze fibula from Niederschönhausen, near Berlin, depicts a diminutive naked male body attached to a disproportionately large head. This head is, in turn, joined at the crown to a second, bearded head (Fig. 5), echoing the contrast in the Dürkheim mounts between the youthful, clean-shaven face and its aged, bearded opposite. In this case there is no doubt that both are intended as male, and the same is probably true of Bad Dürkheim. Interestingly, the unbearded (but with possible moustache) full body figure on the Niederschönhausen fibula is menaced by a large ram’s head, which curves back to loom over him rather menacingly. As at Melsonby and Bad Dürkheim, the Niederschönhausen heads seem to embody different states of being. The bearded head is clearly disembodied, perhaps aged, perhaps even a spirit or ancestor, while the other is depicted in full, naked, youthful and vulnerable.

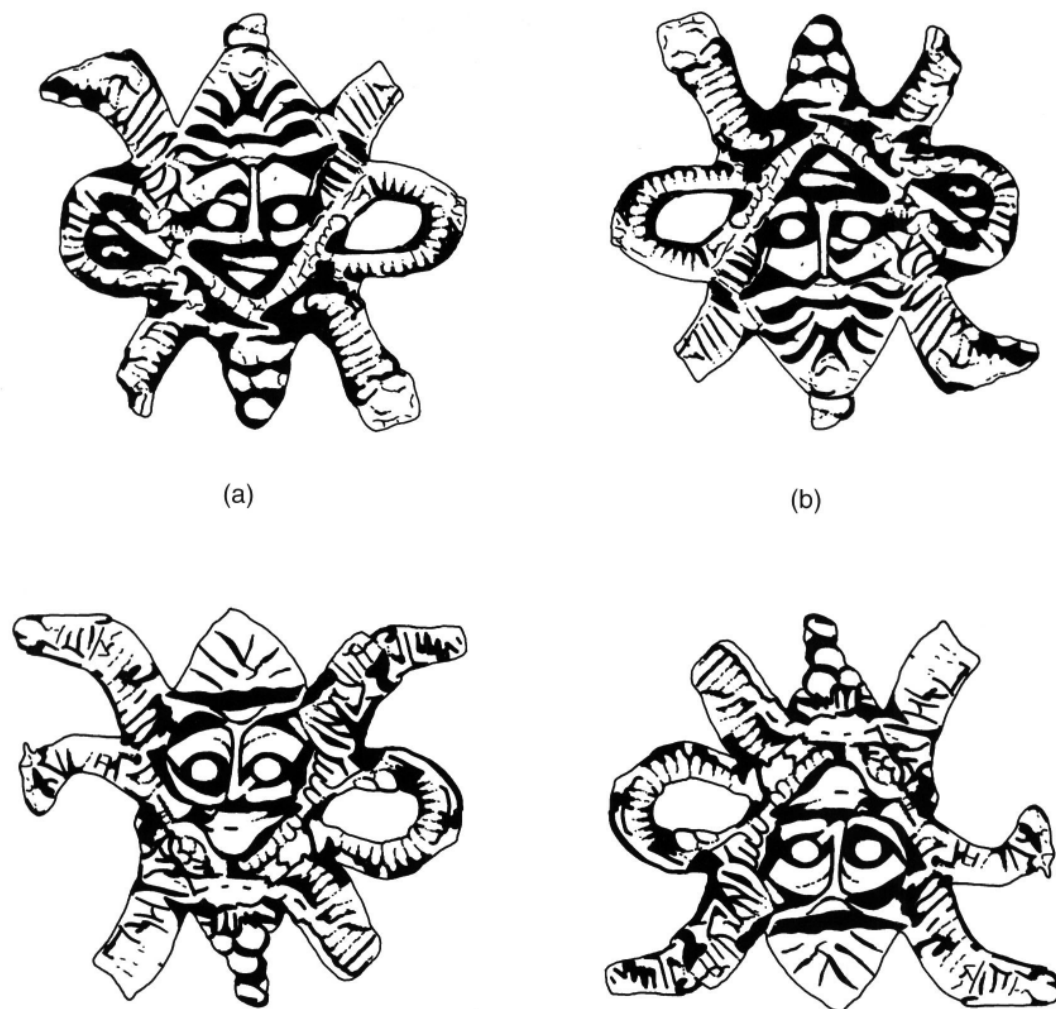


Fig. 4—Two views of the late fifth- or early fourth-century BC foil heads from Bad Dürkheim, Rhinelandpfalz, Germany. Youthful faces wearing 'leaf-crowns' (a) become bearded old men (b) when reversed. The tiny heads are around 1.7cm tall (drawn by Dan Bashford, after Jacobsthal 1944, pl. 28).

Opposed heads in other media

Unlike many of the motifs common in La Tène art, the opposed head motif is not restricted to metalwork but can also be found in stone statuary and, remarkably, wood-carving. Several examples can be found, for example, in the stone-carving traditions of the southern French Iron Age. The closest, in conceptual terms, to the metalwork examples discussed here is the recently discovered example from Badasset in Provence (Fig. 6c). This comprises a roughly shaped stone block, around 0.3m square, found close to an Iron Age promontory fort (Bringer and Dumont-Castells

2000). On one face, carved in low relief, are two adjacent pairs of opposed heads, joined at the chin. Probably deriving from a larger architectural structure, this stray fragment is clearly related to the wider stone-carving traditions of Iron Age Provence, in which the display and representation of the severed human head forms a central motif (Arcelin and Rapin 2003; Armit, *in press*).

Images resonant of the opposed head motif are also contained within one of the most iconic images of the European Iron Age—the 'head-pillar' from Entremont (Fig. 6a). This pillar, found reused in the second-century BC 'hypostyle' building within the oppidum, bears an image of

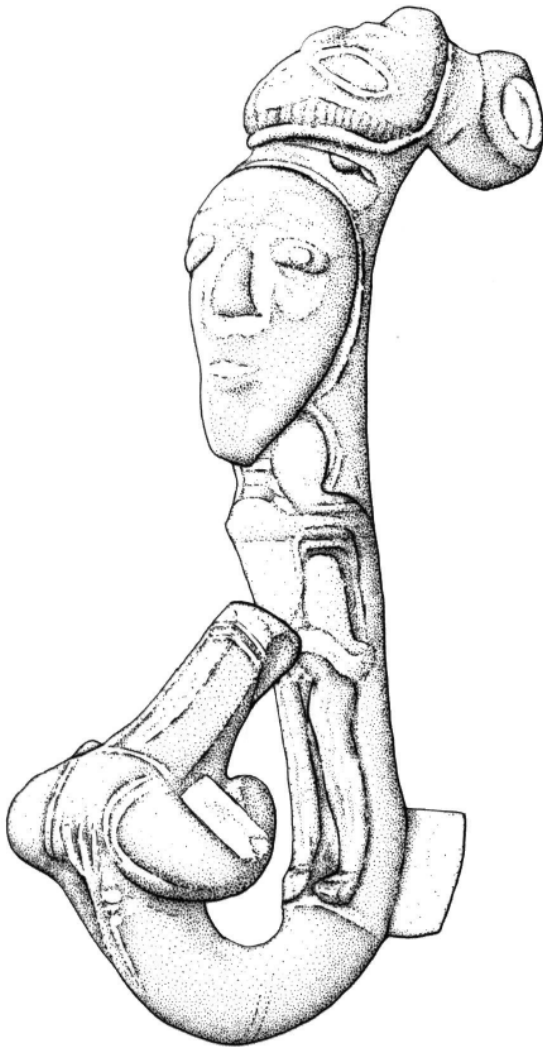


Fig. 5—Bronze fibula from Niederschönhausen, northern Germany. It is around 9cm long (drawn by Dan Bashford, after Jacobsthal 1944, pl. 157, no. 308).

twelve stylised, mouthless human heads (Arcelin 2006), which appears to represent a display of trophy heads (Armit, in prep.). Although the heads are generally identical in execution, the lowermost is upturned and opposed to the head directly above it. Strikingly similar images adorn two faces of the *bloc aux épis* from the same site, where the lowermost heads in each vertical arrangement of four are conjoined at the chin to the head above (Fig. 6b). Dating of these images is inevitably imprecise. Patrice Arcelin (2006, 134) has suggested that the *bloc aux épis* may pre-date the better-worked head-pillar, probably dating from the seventh–fifth centuries BC. The head-pillar itself he places between c. 500 and 400 BC or later (*ibid.*). They are, then,

broadly in the same chronological and cultural milieu as the metalwork representations.

A final example comes from the sanctuary of Sequana, at the source of the River Seine in central France. Among several hundred wooden votives from the site, dating from the early Gallo-Roman period (first century AD), are numerous representations of human body parts, including several depicting grouped, or 'stacked', heads (Deyts 1983, cat. nos 138–51, 152, 153–5; Armit, in prep.). Also present, however, are two carvings depicting opposed heads closely analogous to those seen in the La Tène metalwork of the preceding and, in Britain, contemporary periods (Fig. 7). Each depicts two opposed human heads joined by elongated 'necks'. The pronounced phallic character of at least one of these carvings suggests a link to concepts of fertility and renewal, echoing the recent suggestion that the earliest southern French carvings had similar associations (Armit 2006).

Discussion

The specifically 'Celtic' interest in the human head has been the subject of repeated scholarly investigation for a century or so (e.g. Reinach 1913; Lambrechts 1954; Ross 1967; Sterckx 2005). Side-stepping the ongoing debates about the reality and utility of the concept of an ancient Celtic people or culture (e.g. James 1999; Collis 2003), one can also question how specifically 'Celtic' this phenomenon actually is (e.g. Armit 2006). Nonetheless, it is quite clear that attitudes to the human body in Iron Age Europe were both complex and varied, and that, throughout, the head played a prominent role (Armit, in prep.). It is within this broader context that the appearance, ubiquity and persistence of the opposed head motif must be seen.

When considered at all, as by Jacobsthal, the opposed head motif has usually been identified as a variant of the Janus motif, drawn from the contemporary art styles of the Mediterranean. Indeed, Jacobsthal (1944, 16) characterised examples of the motif as 'Janus-heads . . . in flat projection'. One might, therefore, be tempted to interpret the opposed head motif simply as representing a northern Janus, borrowed from the south. There are, however, certain recurrent features and thematic links between the various depictions that suggest a deeper and more complex symbolism drawn from the wider, indigenous cosmologies of the European Iron Age.

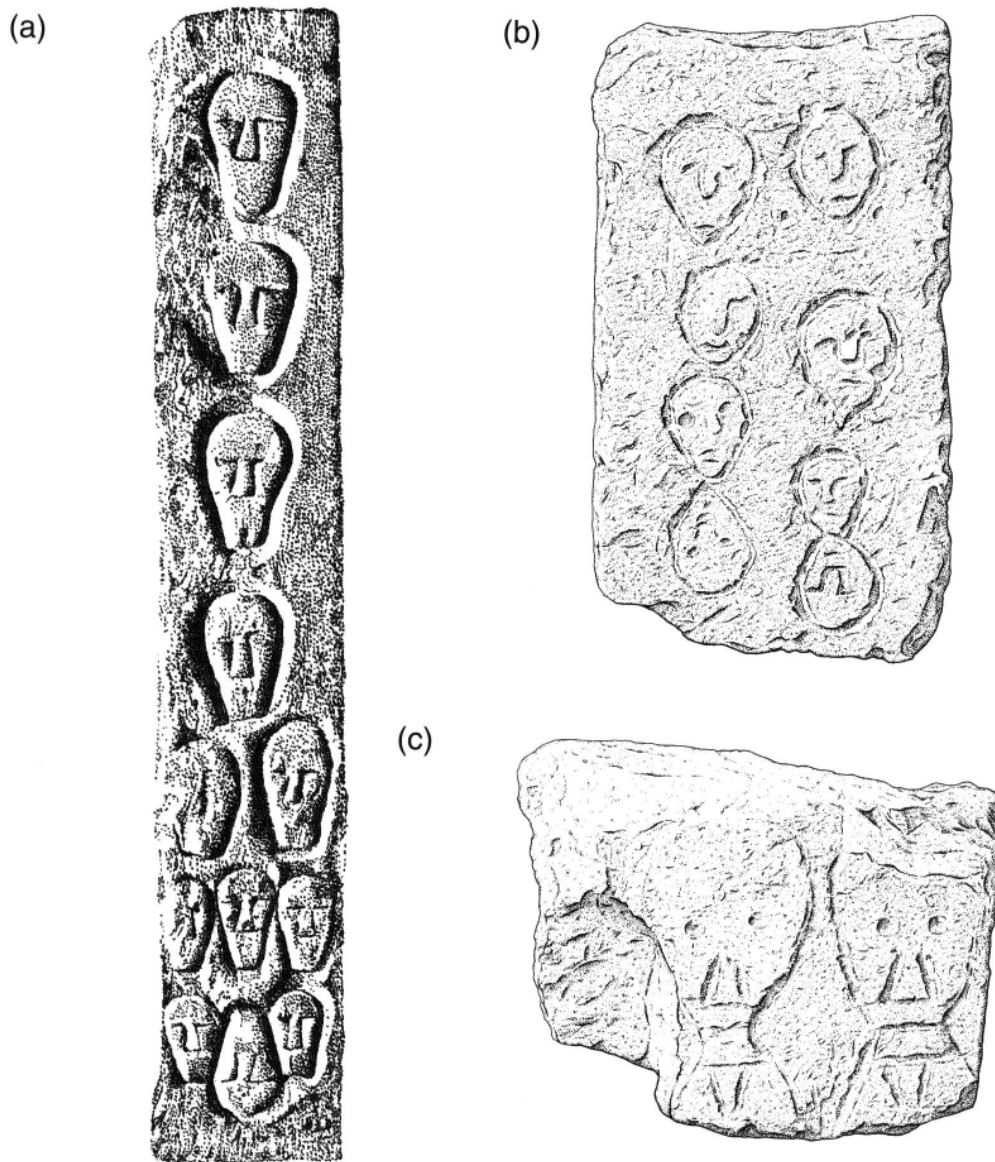


Fig. 6—Opposed heads in southern French Iron Age sculpture: (a) the decorated portion of the head-pillar from Entremont (the complete block is just over 2.5m high); (b) one of three decorated faces on the 'bloc aux épis' from the same site (as it survives, the block is around 0.65m high); and (c) the carved block from Badasset (around 0.3m in maximum dimension) (drawn by Libby Mulqueeny (a) and Dan Bashford (b & c)).

Conventionally, Janus heads face in opposite directions, whereas the opposed heads considered here generally address the viewer directly. True Janus heads occur only rarely in La Tène metalwork, for example on a fifth-century bronze neck-ring from Glauberg, Hessen, Germany, and a first-century BC iron knife from Slovakia (Megaw 1970, nos 87 and 199). Further examples can be found in Iron Age stone sculpture, including the Holzgerlingen statue in southern Germany, dating from the sixth or fifth century BC (Megaw 1970, 48), a stone head from Badacsony-Lábdi in Hungary

(Szabó 1965), second-century BC coins of the Vindelici (Harding 2007, 214), including examples from Manching (Kellner 1990, nos 62–3), and the well-known sculpture from Roquepertuse (Lescure 1990, 171, no. 7). Does the opposed head motif, then, represent merely an alternative rendering of the more familiar Janus?

The Roman Janus, whose primary associations are with physical and temporal transitions, appears to have originated as an Italic god of boundaries and doorways. He can probably be broadly equated to the Etruscan sky-god Ani

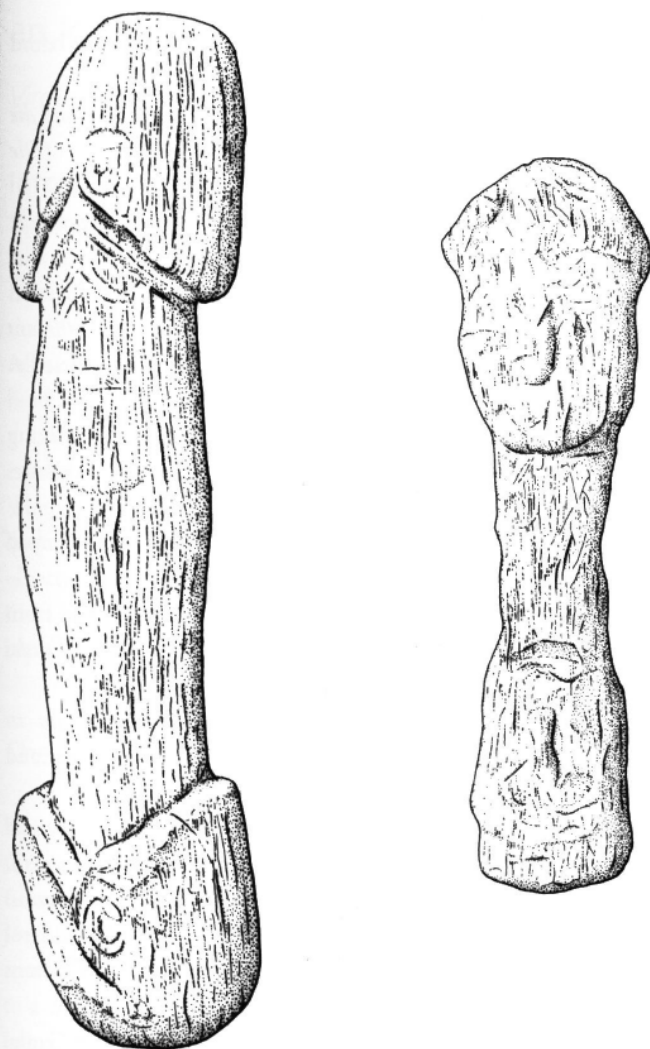


Fig. 7—Opposed heads on two wooden votives from the sanctuary of Sequana. The objects measure 0.68m and 0.48m respectively (drawn by Dan Bashford, after Deyts 1983, cat. nos 156 and 157).

and the Greek Hermes. It would be no surprise then, as Jacobsthal himself remarked (1944, 23), if similarly conceived deities existed further north during the same broad period. Given the weight of iconographic evidence, it seems that a related but essentially indigenous origin is more likely than a simple borrowing of an alien motif from the Mediterranean repertoire, and it seems unnecessary to press the case for a specific Etruscan or Italic derivation for the opposed head motif. Nor does it seem necessary to suppose that the various renderings of the opposed head motif

represent a god, or even a collection of related deities. They may equally make reference to myth, or even express an essentially abstract set of ideas. In any case, the symbolic associations of the opposed head motif appear to have rather different, albeit overlapping, emphases from those of the Roman Janus and his Mediterranean cousins.

It is inherently improbable that the symbolism of the opposed head motif (or any other La Tène design) was fixed and unchanging through the Iron Age. Nonetheless, from the examples considered above we can perhaps tentatively piece together the nexus of symbolic meanings with which the motif was associated, and from which each specific manifestation of the design ultimately emerged. In many cases the two heads are explicitly contrasted and, where this occurs, there is some apparent consistency in the ideas expressed: life versus death, wakefulness versus sleep, youth versus age, and body versus spirit. The implication of transition and liminality in these oppositions recalls the symbolism of the Roman Janus but is hardly suggestive of mere cultural borrowing. Without wishing to be overly reductionist, it is tempting to suggest that the opposition of the heads, and the nature of the dualities expressed, indicates that the heads exist in different states of being, or in different realms—one perhaps in the present world, and the other in the Otherworld of the dead.

Acknowledgements

The arguments contained in this paper are more fully explored in my forthcoming book, *Cults of the head: ritual violence and the body in Iron Age Europe*. Research for this wider project was carried out under the auspices of a Leverhulme Trust Research Fellowship. Original illustrations were drawn by Dan Bashford and Libby Mulqueeney.

References

- Almagro-Gorbea, M. and Lorrio, A. 1993 La tête humaine dans l'art Celtique de la péninsule Ibérique. In J. Briard and A. Duval (eds), *Les représentations humaines du Néolithique à l'Âge du Fer* (Actes du 115^e Congrès National des Sociétés Savantes), 219–37. Paris. Éditions du C.T.H.S.
- Arcelin, P. 2006 Avant Aquae Sextiae: l'oppidum d'Entremont. In F. Mocci and N. Nin (eds), *Aix-en-*

- Provence, Pays d'Aix, Val de Durance (*Carte Archéologique de la Gaule* No. 13/4), 125–68. Paris. Fondation Maison des Sciences de l'Homme.
- Arcelin, P. and Rapin, A. 2003 L'iconographie anthropomorphe de l'Âge du Fer en Gaule Méditerranée. In O. Büchsenschütz, A. Bulard, M.-B. Chardenoux and N. Ginoux (eds), *Decors, images et signes de l'âge du Fer européen. XXVI Colloque de l'Association Française pour l'Etude de l'âge du Fer, Paris et Saint-Denis, 2002*, 183–220. Tours. FERACE.
- Armit, I. 2006 Inside Kurtz's compound: headhunting and the human body in prehistoric Europe. In M. Bonogofsky (ed.), *Skull collection, modification and decoration*, 1–14. British Archaeological Reports, International Series 1539. Oxford. Archaeopress.
- Armit, I. (in press) Porticos, pillars and severed heads: the display and curation of human remains in the southern French Iron Age. In M.-L. Stig Sørensen, K. Rebay and J. Hughes (eds), *Bodies in pieces: the changing relations between body parts and bodies whole* [in press]. Oxford. Oxbow.
- Armit, I. (in prep.) *Cults of the head: ritual violence and the body in Iron Age Europe*.
- Benoît, F. 1975 The Celtic oppidum of Entremont. In R. Bruce-Mitford (ed.), *Recent archaeological excavations in Europe*, 227–59. London. Routledge.
- Bringer, G. and Dumont-Castells, A. 2000 Le bloc aux têtes coupées de Badasset. In J. Chausserie-Laprée (ed.), *Les Temps des Gaulois en Provence*, 105. Martigues. Musée Ziem.
- Collis, J.R. 2003 *The Celts: origins, myths and inventions*. Stroud. Tempus.
- Deyts, S. 1983 *Les bois sculptés des sources de la Seine (Gallia Supplément 42)*. Paris. Éditions du Centre National de la Recherche Scientifique.
- Fitts, R.J., Haselgrove, C.C., Lowther, P.C. and Willis, S.H. 1999 Melsonby revisited: survey and excavation 1992–95 at the site of the discovery of the 'Stanwick', North Yorkshire, hoard of 1843. *Durham Archaeological Journal* 14–15, 1–52.
- Harding, D.W. 2007 *The archaeology of Celtic art*. London. Routledge.
- Jacobsthal, P. 1944 *Early Celtic Art*. Oxford. Clarendon Press.
- James, S. 1999 *The Atlantic Celts: ancient peoples or modern invention?* London. British Museum Press.
- Jope, M. 2000 *Early Celtic art in the British Isles*. Oxford University Press.
- Kellner, H.-J. 1990 *Die Münzfunde von Manching und die keltischen Fundmünzen aus Südbayern (Die Ausgrabungen in Manching 12)*. Stuttgart. Steiner.
- Lambrechts, P. 1954 *L'exaltation de la tête dans la pensée et dans l'art des Celtes*. Bruges. De Tempel.
- Lescure, B. 1990 Roquepertuse: collection archéologique. In Musées de Marseille, *Voyage en Massalie: 100 ans d'archéologie en Gaule du Sud*, 165–71. Marseille. Edisud.
- McGregor, M. 1962 The early Iron Age metal-working hoard from Stanwick, North Riding, Yorkshire. *Proceedings of the Prehistoric Society* 28, 18–57.
- Megaw, J.V.S. 1970 *Art of the European Iron Age: a study of the elusive image*. Bath. Adams and Dart.
- Megaw, J.V.S. 1982 An early La Tène maskenfibel from Slovenské Pravno, Okr. Martin Slovakia. *Études Celtiques* 19, 7–34.
- Megaw, R. and Megaw, V. 1989 *Celtic art: from its beginnings to the Book of Kells*. London. Thames and Hudson.
- Megaw, R. and Megaw, V. 1993 Cumulative Celticity and the human face in Insular pre-Roman Iron Age art. In J. Briard and A. Duval (eds), *Les représentations humaines du Néolithique à l'Âge du Fer* (Actes du 115^e Congrès National des Sociétés Savantes), 205–18. Paris. Éditions du C.T.H.S.
- Reinach, A. 1913 Les têtes coupées et les trophées en Gaule. *Révue Celtique* 34, 38–60, 253–86.
- Ross, A. 1967 *Pagan Celtic Britain: studies in iconography and tradition* (1st edn). London. Routledge.
- Stead, I.M. and Rigby, V. 1999 *The Morel Collection: Iron Age antiquities from Champagne in the British Museum*. London. British Museum Press.
- Sterckx, C. 2005 *Les mutilations des ennemis chez les Celtes préchrétiens: la tête, les seins, le graal*. Paris. Association Kubaba.
- Szabó, M. 1965 A Celtic double head from Badacsony-Lábdi. *Acta Archaeologica Hungaria* 17, 233–50.

The Waldalgesheim Flagon and the Tara Brooch: some considerations of an iconographic tradition

Virginie Defente

Introduction

It is a pleasure to contribute to this Festschrift for Barry Raftery. I would like to take the opportunity to revisit a theme which Barry dealt with in an early work of his on Iron Age iconography, specifically the association of a human head and a bird's head on an early Irish horse-bit dating from the La Tène period (Raftery 1974). In this paper I will examine a well-known early Continental Celtic work, the Waldalgesheim Flagon, from Rhinelandpfalz, Germany, dating from the fourth century BC, and an emblematic Irish object, the Tara Brooch, Bettystown, Co. Meath, dating from the eighth century AD. Both are decorated with identical motifs: an animal head and a human head.

The Waldalgesheim Flagon

The Waldalgesheim Flagon (Kr. Bingen, Rhinelandpfalz, Germany, fourth century BC; bronze; H 31.4cm; 1,659g; Rheinisches Landesmuseum Bonn; inv. no. A. 785, 01; 41; Joachim 1995) (Fig. 1) was part of the inventory of a rich tomb discovered by chance in 1869. The tomb was devoted to a woman inhumed with a two-wheeled chariot and other items, such as highly ornamented personal gold ornaments. The chariot accoutrements, the horse-harness elements and the bronze flagon under discussion here were equally richly decorated. The flagon (*Röbrenkanne*), dating from the second half of the fourth century BC, consists of several parts: the cap and its horse-shaped handle, the handle, the body composed of two bronze sheets, the base, the spout and its end. The upper part of the handle is decorated with a ram's head motif, while the lower attachment of the handle is embellished with a human head, moustached with a long, thin beard and wearing headgear. This kind of headgear is usually called a 'leaf crown' or a 'mistletoe leaf crown' (Kruta 2000, 649). The ram's head and the human head are vertically arranged and connected by curvilinear motifs running up the length of the handle.

On the Continent, the ram's head was not a common motif during the later Iron Age, and neither was the

combination of ram's head and human head (Binding 1993, 16). A few examples are known, however, such as on the Gersheim-Reinheim flagon, similar in type to the Waldalgesheim one and found in a rich female tomb dated to the first half of the fourth century BC, where a ram's head is arranged below a human head (Echt 1999). In addition, the ram's head here is associated with another motif, probably a vegetal one (*ibid.*, pl. 22). The ram's head and the bearded human head can also be seen in a similar position on the bronze brooch from Port-à-Binson, Marne, France, a stray find dating from the fifth century BC (Kruta 1989, 15).

Other relevant associations include that on the foot of a bronze brooch from Aignay-le-Duc, Côte d'Or, France, from a tumulus dating from the fifth century BC (Henry 1933, 33

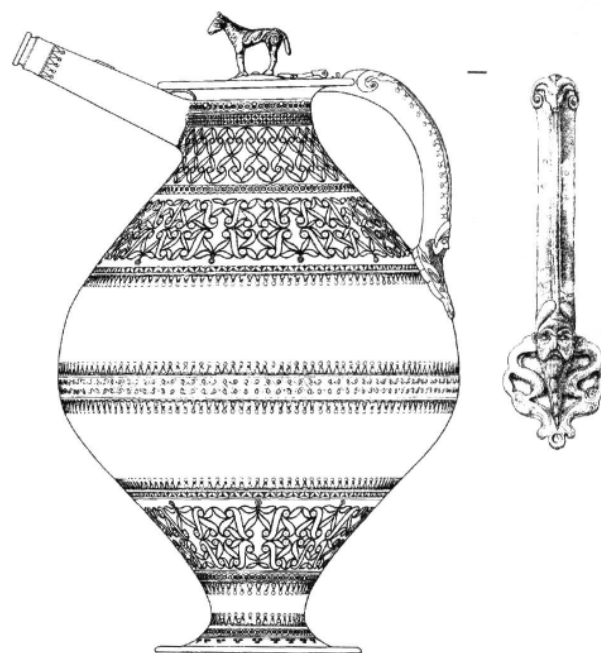


Fig. 1—The Waldalgesheim Flagon, Rhinelandpfalz, Germany, fourth century BC (drawing after Joachim 1995, fig. 29 (for the flagon), fig. 23 (for the handle)).

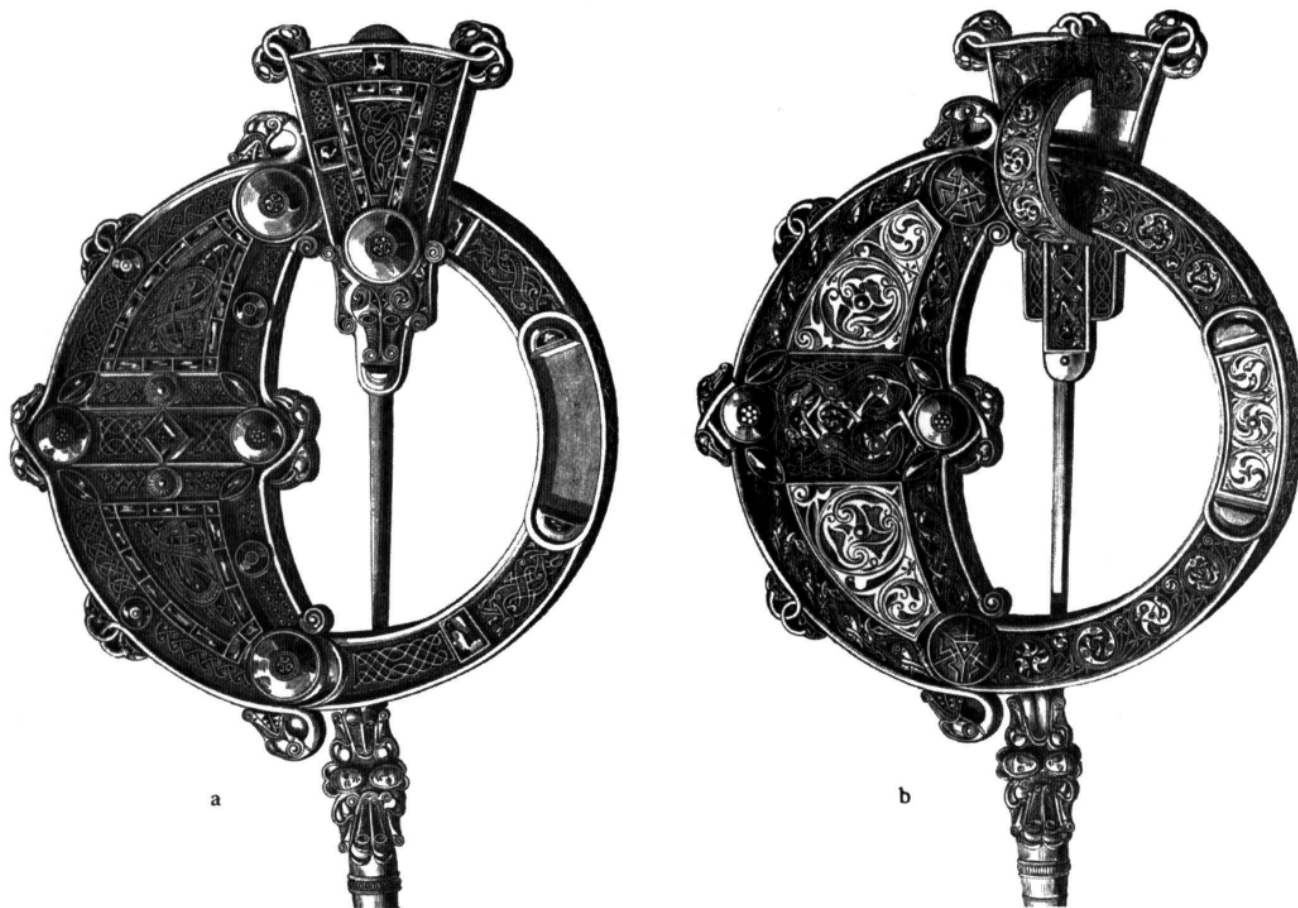


Fig. 2—The Tara Brooch, Bettystown, Co. Meath, Ireland, eighth century AD (drawing after Whitfield 1976, fig. 4, the Waterhouse wood-engravings of the brooch published in 1852).

and 172; Joffroy 1955, 158–60). On the bronze mount from Droužkovice, district Chomutov, Czech Republic, the ram's head is in contact with another animal's head (Megaw and Megaw 2002). This mount was found in a quadrangular palisaded and ditched enclosure dating from the first half of the fifth century BC. Centuries later, a similar association of motifs can be seen on an Irish early medieval metalwork piece, the Tara Brooch.

The Tara Brooch

The so-called Tara Brooch (eighth century AD; bronze, gilded, with added amber, gold, glass, silver and copper; L

(pin length) 23cm; L (sheet length) 4.55cm; diam. (ring) 8.7cm; 224.36g; NMI, Dublin, inv. no. R 4015; Whitfield 1974; Ryan 1983) was a chance find without any apparent archaeological context at Bettystown, Co. Meath, in 1850. 'Although it had no provable connection with the site of Tara it was called the "Tara Brooch" by the dealer through whose hands it passed presumably in order to enhance its perceived value. The actual discovery was made on the seashore at Bettystown, County Meath, near where a block of cliff had collapsed after erosion by the waves', according to Cone 1977. The brooch was acquired by the Royal Irish Academy, whose collection was lodged in the National Museum of Ireland, Dublin, in 1891. It is divided into several panels, each one moulded. Each surface, the inner and outer sides

included, is decorated. Restored and described on various occasions, the Tara Brooch is now incomplete, as old photographs and drawings from the nineteenth century show motifs now lost (Whitfield 2001; Whitfield 1976; Stevick 1998). Most of the published drawings are not complete or are incorrect. The drawing used in this paper, made before the first restorations, is different from the 'Tara Brooch' today, especially the pin. Also, the same motifs are given for both sides instead of showing the two differently ornamented faces. This drawing has been chosen because it is one of the oldest. This brooch belongs to what was regularly called the pseudo-penannular type but is now more often simply called 'annular': its closed ring is enlarged, giving more space for ornamentation (Smith 1914). For pseudo-penannular brooches silver was frequently used, whereas bronze was the preferred working material for the penannular brooches, with the exception of the bossed penannular brooches of the Viking Age made entirely of silver, which revived the penannular form. The obverse of the brooch carries highly accomplished filigree ornament where the reverse has fine *kerbschnitt* animal and abstract ornament as well as two magnificent panels of so-called 'Ultimate La Tène', which the restoration by the British Museum laboratory has shown to be silvered copper plates, the design being created by intaglio cutting, instead of plates decorated with niello.

The animal ornament and the angular patterns on the inlaid pseudo-*cloisonné* glass studs of the brooch have strong points of resemblance with the Germanic or Germanic-inspired styles. Many of the decorative studs are amber, an exotic material in Ireland. Curvilinear compositions on the reverse are generally compared with early insular Celtic art. The polychrome decorated studs referred to above are imitation *cloisonné* executed in cast glass with applied inlays in some cases (Henry 1963, 109).

On the top of the triangular head of the pin, there is on each corner two bird heads that cross one another. The birds have hooked beaks. At the end of the triangular head of the pin, covered with interlacing, an animal head is topped by an amber disc. At the end of the chain there is an elaborate, free-moving hinged tab that features two glass opposed human heads framed by four profile animal heads—two pairs—facing away from the human faces.

This composition is rather different from the composition of the pin's upper part, based on the motifs' succession, one under the other. What we can notice is the head of a beast, which offers some comparable parallels to

continental Germanic and early Celtic works. The Germanic style, and especially style I, has indeed produced bronze brooches ornamented with geometric motifs associated with animals and human heads (Haseloff 1974).

Discussion

The association of the same motifs—an animal head and a human head—on the Waldalgesheim Flagon and the Tara Brooch is not sufficient to establish a link between them. Even by appealing to the 'Celtic spirit', a historical continuum between the fourth century BC and the eighth century AD cannot be demonstrated. Nevertheless, the same word—Celtic—is used for later Iron Age artefacts and Irish early medieval artefacts in spite of completely different historical contexts (Cluny Museum 2008).

The Waldalgesheim Flagon reflected the development of a new visual vocabulary on the Continent in the fourth century BC, while a new expression in Irish early medieval visual arts is brilliantly illustrated by the Tara Brooch. Belonging to different geographical and historical contexts, the Waldalgesheim Flagon and the Tara Brooch are superb testimonies of autonomous creation, each of them clearly indicating the mobility of creativity.

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Bibliography

- Binding, U. 1993 *Studien zu den figürlichen Fibeln der Frühlatènezeit*. Universitätsforschungen zur prähistorischen Archäologie aus dem Seminar für Ur- und Frühgeschichte der Universität Münster 16.

- Cluny Museum 2008 *Celtes et Scandinaves. Rencontres artistiques, VIIe–XIIe siècles* (exhibition catalogue, Cluny Museum, Paris). Paris. Réunion des Musées Nationaux.
- Cone, P. (ed.) 1977 *Treasures of early Irish art, 1500 B.C. to 1500 A.D., from the collections of the National Museum of Ireland, Royal Irish Academy and Trinity College, Dublin*, 137–8. New York. Metropolitan Museum of Art.
- Echt, R. 1999 *Das Fürstinnengrab von Reinheim*. Studien zur Kulturgeschichte der Früh-La-Tène-Zeit. Blesa 2. Bonn. R. Habelt.
- Haseloff, G. 1974 Salin's Style 1. *Medieval Archaeology* 18, 1–15.
- Haseloff, G. 1981 *Die germanische Tierornamentik der Völkerwanderungszeit*. Vorgeschichtliche Forschungen 17, vols I–III. Berlin and New York. Walter de Gruyter.
- Henry, F. 1933 *Les tumulus de la Côte d'Or*. Paris. Librairie Ernest Leroux.
- Henry, F. 1963 *L'art irlandais*, vol. I. Paris. Zodiaque.
- Joachim, H.E. 1995 Waldalgesheim. Das Grab einer keltischen Fürstin. *Kataloge des Rheinischen Landesmuseums Bonn*, 3. Cologne and Bonn. Rheinland-Verlag.
- Joffroy, R. 1955 Les sépultures de Belan/Ource. *Bulletin de la Société Archéologique et Historique du Châtillonnais* 3, 158–60.
- Kruta, V. 1989 La fibule 'à masque' du gué de Port-à-Binson, Marne. *Etudes Celtiques* 26, 7–22.
- Kruta, V. 2000 *Les Celtes. Histoire et dictionnaire: des origines à la romanisation et au christianisme*. Paris. Laffont.
- Megaw, J.V.S. and Megaw, R. 2002 The bronze mount from Droužkovice, northwest Bohemia. *Pamatky archeologické* 93, 173–93.
- Ó Floinn, R. 1989 Secular metalwork. In S. Youngs (ed.), *'The Work of Angels': masterpieces of Celtic metalwork, 6th–9th centuries AD*, 72–90. London. British Museum.
- Raftery, B. 1974 A decorated Iron Age horse-bit fragment from Ireland. *Proceedings of the Royal Irish Academy* 74C, 1–10.
- Ryan, M. (ed.) 1983 *Treasures of Ireland. Irish art 3000 B.C.–1500 A.D.* Dublin. Royal Irish Academy.
- Smith, R.A. 1914 Irish brooches of five centuries. *Archaeologica* (2nd ser.) 25, 223–50.
- Stevick, R.D. 1998 The form of the Tara Brooch. *Journal of the Royal Society of Antiquaries of Ireland* 128, 5–16.
- Whitfield, N. 1974 The finding of the Tara Brooch. *Journal of the Royal Society of Antiquaries of Ireland* 104, 120–42.
- Whitfield, N. 1976 The original appearance of the Tara Brooch. *Journal of the Royal Society of Antiquaries of Ireland* 106, 5–30.
- Whitfield, N. 2001 The 'Tara' Brooch: an Irish emblem of status in its European context. In C. Hourihane (ed.), *From Ireland coming: Irish art from the Early Christian to the late Gothic period and its European context*, 211–48. Princeton University Press.

A style without genesis? The elusive birthplace of early Celtic art

J. V. S. Megaw and M. Ruth Megaw

For a long period of time there has been debate over the birth and development of what, since nearly a century before publication in 1944 of Paul Ferdinand Jacobsthal's fundamental survey, has been termed 'early Celtic art' (for a brief history see R. Megaw and Megaw 2001, 12–16; Frey 2006).

As a classical archaeologist, familiar with terms such as 'school', 'workshop' or 'master', Jacobsthal was more interested in motifs as elements of style than with style itself; indeed, his use of the latter term is surprisingly loose, particularly with reference to the first of his groups, the 'Early style'. The material he was concerned with explicitly excluded glass and hardly did justice to decorated pottery. Likewise, Jacobsthal's consideration of origins, which led him to defining the triple root of Celtic art as springing from Italy, the East and Hallstatt, was heavily influenced by his extensive knowledge of the development of Archaic and Classical art forms. In fact, there are sound reasons for largely ignoring the East as a substantial element in the growth of 'the Orientalising Celtic Style', at least as having been in any way a direct influence, just as there are strong arguments for dismissing as nothing more than interesting analogies the once-fashionable claim to influence from nomadic or 'Scythian' styles (Megaw 2005). On the other hand, when Jacobsthal wrote—in a much misunderstood phrase—that 'Early Celtic art has no genesis' (Jacobsthal 1944, esp. 148), what he meant is, as this paper will attempt to demonstrate, that it is difficult ever to identify a tentative learning stage in the development of a new art style. In contrast, one may observe such frequently quoted pieces as the engraved scabbard from the La Tène A grave 994 at Hallstatt which clearly translates the influence of 'situla' or Venetic art in a manner both accomplished and at the same time local in style (Jacobsthal 1944, no. 96; see most recently Egg *et al.* 2006).

As Otto-Herman Frey has reminded us, Jacobsthal was primarily 'interested in those elements that derived without question from Classical ornamental designs' (Frey 2004, esp. 107). Much less significant for him were what he regarded as the relatively rare examples of figural—and particularly human—imagery. Despite his evocation of the 'Cheshire

(cat) style', first identified by Jacobsthal (1941, 308), he failed to recognise the encoding of the human face that is such a feature of artistic developments, particularly those commencing in the later fourth century (Jacobsthal 1944, chap. 1; Megaw 1965–6; 1967; Frey 1996; Guggisberg 2006). It was perhaps natural that the starting point of Jacobsthal's researches was his noticing as he described it, 'one day in the cold and hungry winter of 1921', the two mid-fifth-century Attic cups from the Kleinaspergle, Kr. Ludwigsburg, decorated by their Celtic owners with an openwork net of gold leaf (Jacobsthal 1944, vi and no. 32) (Fig. 1). While this led naturally to an analysis of decorated sheet-gold work of his 'Early Style', Jacobsthal did not, and at the time could not, grasp the significance in its local context of the southernmost of all the La Tène A rich burials containing Mediterranean imports comparable with those of the Hunsrück-Eifel region such as Bad Dürkheim and Rodenbach (for a recent review of the evidence see Nortmann 2002; 2003).

While a proper discussion of this theme might demand a full review of current thought on how—and where—early La Tène culture first developed, recent summaries by Echt (2004), Krause (1999; 2006) and Nortmann (2003) have made the task easier. It seems clear that there is no cultural overlap between late Hallstatt and early La Tène. In southwestern Germany there is a clear sequence which begins with such rich mid- to late sixth-century burials as the Grafenbühl and Eberdingen-Hochdorf, Kr. Ludwigsburg, with its attendant La Tène settlement also with evidence of imported Attic red figure pottery. Dirk Krause regards the appearance of curvilinear ornament and the stylised little horses from the Eberdingen-Hochdorf wagon yoke as a first experimental stage. This he regards as leading to the fully developed La Tène art in the goldwork which is evident only found in the élite tombs such as Kleinaspergle, Kr. Ludwigsburg (Kimmig 1988). The Kleinaspergle burial was sited below a major hillfort and beside a wealthy late Hallstatt grave, and was secondary to a much larger central burial robbed in antiquity. But it is a fact that Kleinaspergle *is* so much a southern satellite, a fact that militates against the region's claim to be the birthplace of early Celtic art.



Fig. 1—Kleinaspergle, Kr. Ludwigsburg. Attic stemless cup by the Amymone Painter (c. 450 BC), locally embellished with gold leaf. After the first restoration in 1879–80. Max. diam. 220mm (photo: Landesmuseum Württemberg, Stuttgart).

As Echt (2004, esp. 204–6) has pointed out, it seems strange that it took almost a century of imports from the Classical world to have any effect on the development of the new Celtic art despite the acquisition of these new exotic goods by the local élites. Even if one can no longer argue for a major political and cultural interruption at the end of the Hallstatt phase, phenomena such as the evidence for a gradual decline in eastern France, the destruction of the Heuneburg and what in southern Germany seems to be a break in the sequence of rich burials between HaD2/3 and later LT A may give some support to what we have previously described as a shift of both population and power to new areas. But there are some other hints as to the

beginning of the evolution of early Celtic art during Echt's proto-La Tène phase (Echt 2004, esp. 206; Krausse 2006).

From the Heuneburg there is the HaD mould fragment made of local clay and copying the basal head of an Etruscan *oenochoe* handle which on stylistic grounds can be dated to c. 480–460 BC (von Hase 2000). At Eberdingen-Hochdorf the third lion on a cauldron imported from Magna Graecia may be a very poor-looking beast—after all, lions must have been rare in south-western Germany in the sixth century—but it was cast locally from a copper-tin alloy superior to that used by the original Greek bronze-smiths (R. Megaw and Megaw 2001, 42 and ill. 35–7). The contemporary life-size Hirschlanden grave-marker, like the later examples from the



Fig. 2—(a) Ditzingen-Hirschlanden, Kr. Ludwigsburg. Stüben sandstone figure, c. 500 BC. Ht 150cm (photo: Landesmuseum Württemberg, Stuttgart).
(b) Glauburg-Glauberg, Wetteraukreis. Sandstone figure, fifth century BC. Ht 1.86m (photo: U. Seitz-Gray).

Glauburg-Glauberg, Wetteraukreis (only one of which is near complete), strongly suggests the influence of the Piceno and pieces such as the Capestrano warrior (Megaw 1970, no. 12; Frey 2000; R. Megaw and Megaw 2001, ill. 40 and 427; Baitinger and Pinsker 2002, Kat.-Nr. 3.1, 127 and 130) (Fig. 2a–b). For many years Frey has emphasised the link between the Atestine region and the early—and by no means frequent—figural elements in Celtic art. Occasionally such links seem indisputable, as between the stamped sherd, alas now lost, from Libkovice near Most and details as found on 'situla' art as in the Fondo Capodaglio, grave 38 at Este (Fig. 3a–b) (Frey 2007; see also Megaw 1970, nos 28–9). We have no problems in accepting as a local product influenced by Este the military procession engraved on the bronze sword-scabbard from Hallstatt grave 994. 'Local', however, we

would regard as more likely to refer not to Hallstatt but to the Dürrnberg complex. The extraordinary boar's-hunt bowl from grave 137 recently studied by Alexandrine Eibner (2001) would, like the Matzhausen *Linsenflasche*, provide material for a separate study on trans-Alpine influences on early Celtic art (Jacobsthal 1944, no. 402; Megaw 1970, no. 27) (Fig. 4a–b). We would consider that the role of the Dürrnberg as a conduit for new stylistic elements has, if anything, been underestimated (R. Megaw and Megaw 2003) and, since the evolution of new styles does not occur by telepathy, we should recall Pliny's account of Helico, the Helvetic smith who was so taken with what he saw while working in Italy that when he returned home he encouraged others to journey south (Pliny, *Nat. Hist.* xii.5; Pauli 1985, 27–8).

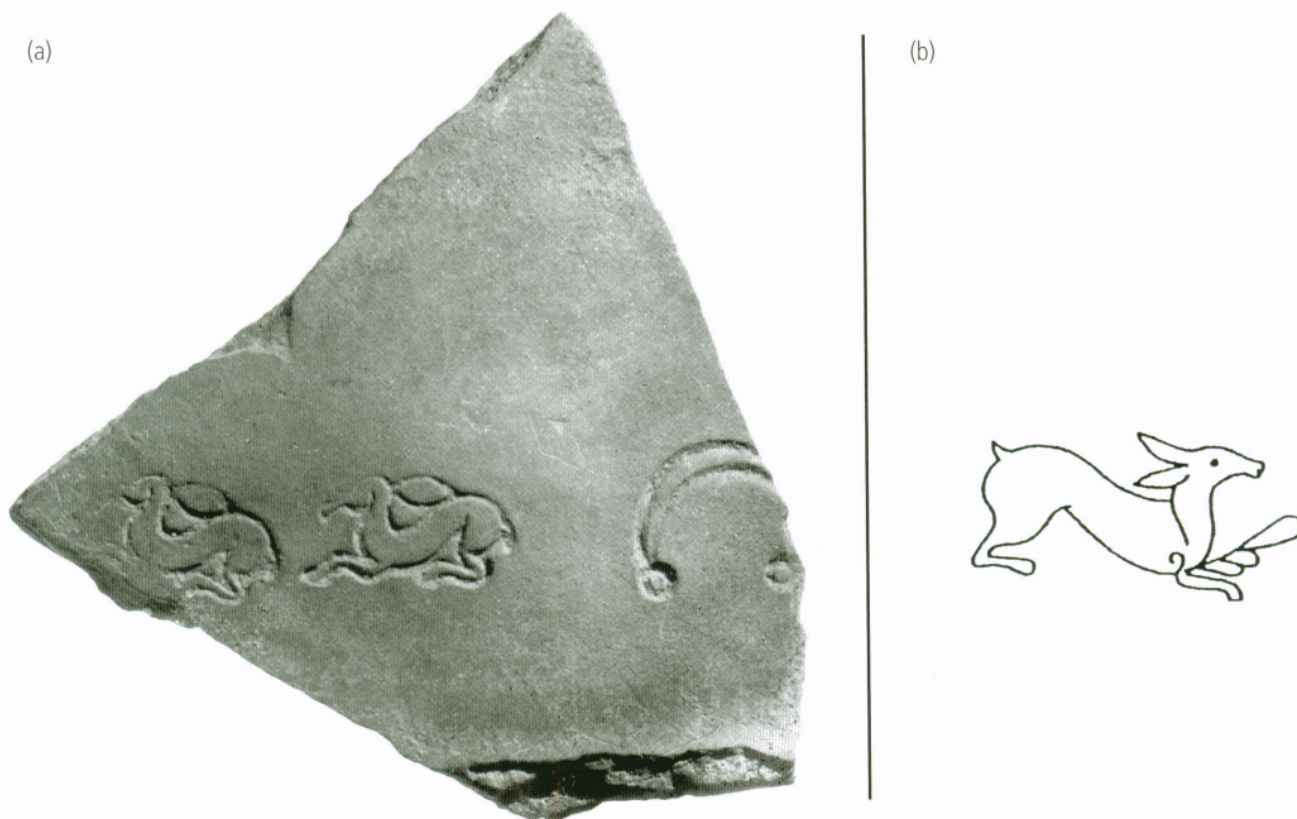


Fig. 3—(a) Libkovice, okr. Most. Stamped sherd with hares (lost), later fourth century BC. Length (of stamp) c. 20mm (photo: Archeologický ústav AV ČR, Prague).
(b) Fondo Capodoglio, grave 38, Este. Detail of situla, c. 500 BC. Length c. 70mm (drawing: after Frey 2007).

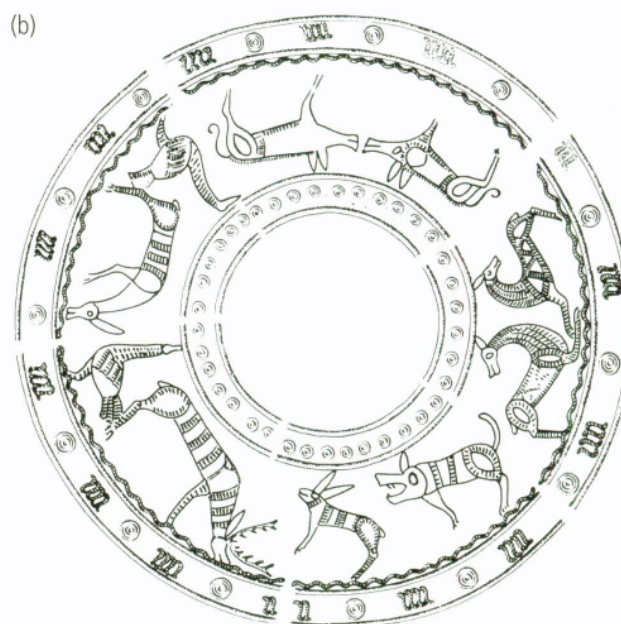


Fig. 4—(a) Dürrnberg bei Hallein, Ld. Salzburg, grave 137. Bronze bowl, c. 400 BC. Diam. 128mm (photo: Keltenmuseum, Hallein).
(b) Truppenübungsplatz Nainhof-Hohenfels, Kr. Neumarkt (formerly Matzhausen). Stamped and incised decoration on *Linsenflasche*, c. 400 BC. Total ht 238mm (drawing: after Reinecke 1911, fig. 2).

In what may be regarded as the earliest stratum of La Tène elite graves such as Dörth, Theley, Worms-Herrnsheim and Besseringen, under the influence of the new visual vocabulary from the Graeco-Etruscan world the more angular and geometric elements of the previous phases were transformed into new plant-based forms; amongst these the stylised palmette and lotus blossoms dominated (Echt 2004, esp. 207–8). Here we feel that some of Echt's claims of more or less literal Classical borrowings go too far, as again in his comparison of the Dörth gold drinking-horn mount with Proto-Corinthian decorative elements. Echt also regards the—again now lost—Besseringen, Kr. Merzig-Wadern, gold torc (Jacobsthal 1944, no. 41; Megaw 1970, no. 56; R. Megaw and Megaw 2001, 90 and ill. 115) (Fig. 5) as amongst the earliest pieces of La Tène art. For Echt there are direct references not only to Etruscan goldwork but also to the stylised lotus buds incised on 'Rhodian'. But he has not explained how this relates to the basically similar if more crudely made gold neck-ring from the first Glauberg warrior-grave (Baitinger and Pinsker 2002, Kat.-Nr. 1.2).

Certainly, throughout LT A, rigid symmetry gradually became displaced, and human and animal figures, many derived from Italy, developed into new and ambiguous forms quite different from those of Archaic and early Classical Greece. Beyond the now generally accepted view that human representations must have played a particular rôle in La Tène belief systems, a number of scholars have argued that such representations mark the development of a new, indigenous, conception of, if not anthropomorphic gods, then hero figures (Frey 1998; 2002; Megaw 2003; Guggisberg 2006, esp. 239–41). Perhaps less controversial is the close similarity between the basal handle face of the locally made Kleinaspergle *Schnabelkanne* and that of the Etruscan stamnos from the same grave and, even closer, the stamnos from the second Weiskirchen, Kr. Merzig-Wadern, grave (Megaw 1965–6, 107–8 and Taf. 6:1–2; R. Megaw and Megaw 2001, 55 and ill. 47–8) (Fig. 6a–b). Here surely we are literally face to face with the process of transformation which runs through all early Celtic art in its borrowings from the Classical world.

There is another striking example of indigenous transformation. We have mentioned the Attic cups from the Kleinaspergle grave decorated by their new La Tène owners (Fig. 1), and we may mention here the fragments of painted cups found in settlements at Plzeň-Roudná and Chržín, okr. Kladno (R. Megaw and Megaw 2007) (Fig. 7). As Jan Bouzek pointed out some years ago, the first of these is

basically a copy of an Attic red-figure cup made right at the beginning of the fifth century with red and black under-painting (Bašta *et al.* 1989). In my opinion, however, both vessels are more likely to be of local manufacture than from the south Alpine periphery. To be noted in particular in the decoration of the Plzeň cup is the stylised lyre and tendril pattern over-painted in white, an element of somewhat later central and eastern European stamped ware. Given the ever-accumulating evidence for the distribution of Attic pottery north of the Alps (see most recently the evidence from a settlement at Prague-Ruzyně: Trefný 2008), the Plzeň cup is also a strong candidate for the 'transformation' stage in early Celtic art.

As we have suggested at the beginning of this paper, Jacobsthal did not indicate a clear development within his early style any more than he placed sufficient emphasis on the rise in local early La Tène metal-smithing centres. It is clear, however, that on the fringes of the old Hallstatt area of the Saar, Mosel and Middle Rhine this new style shows its closest affinities with the Mediterranean worlds, while in contrast, particularly in the Hunsrück-Eifel and Champagne (Nortmann 2003), the old-fashioned geometric repertoire is retained in metalwork and pottery decoration. Champagne and the Ardennes were obviously part of the general early La Tène social evolution and the trading network in Mediterranean high-status imports, as marked by at least some of the chariot graves. These were incorporated with larger cemetery units and, as in the Hunsrück-Eifel, included women amongst the elite, though local fine metalwork is more restricted in range and ornate brooches are almost totally absent save for a few local examples. In metalwork, only some high-quality engraved bronzes and a series of the complex harness mounts exhibiting a sophisticated use of geometric principles represent regional specialities.

The area with the greatest evidence of elite graves is without doubt the Hunsrück-Eifel. Here, Nortmann (2003) also argues for continuity and observes that the art of the elite tombs is in fact to a large degree the material that Jacobsthal included in his study—indeed, a more accurate title for his study might have been *Elite art of the early Celtic period*. Far from being isolated, such rich burials seem to be a feature of nearly every cemetery and accompanying settlement, large or small. Only complexes like the Glauberg, which is outside the Hunsrück-Eifel area, seem to argue for the existence of major 'central places'. Nortmann follows Kossack (1974) who, in dismissing theories concerning major economic and social change in the early La Tène period, regards the elite

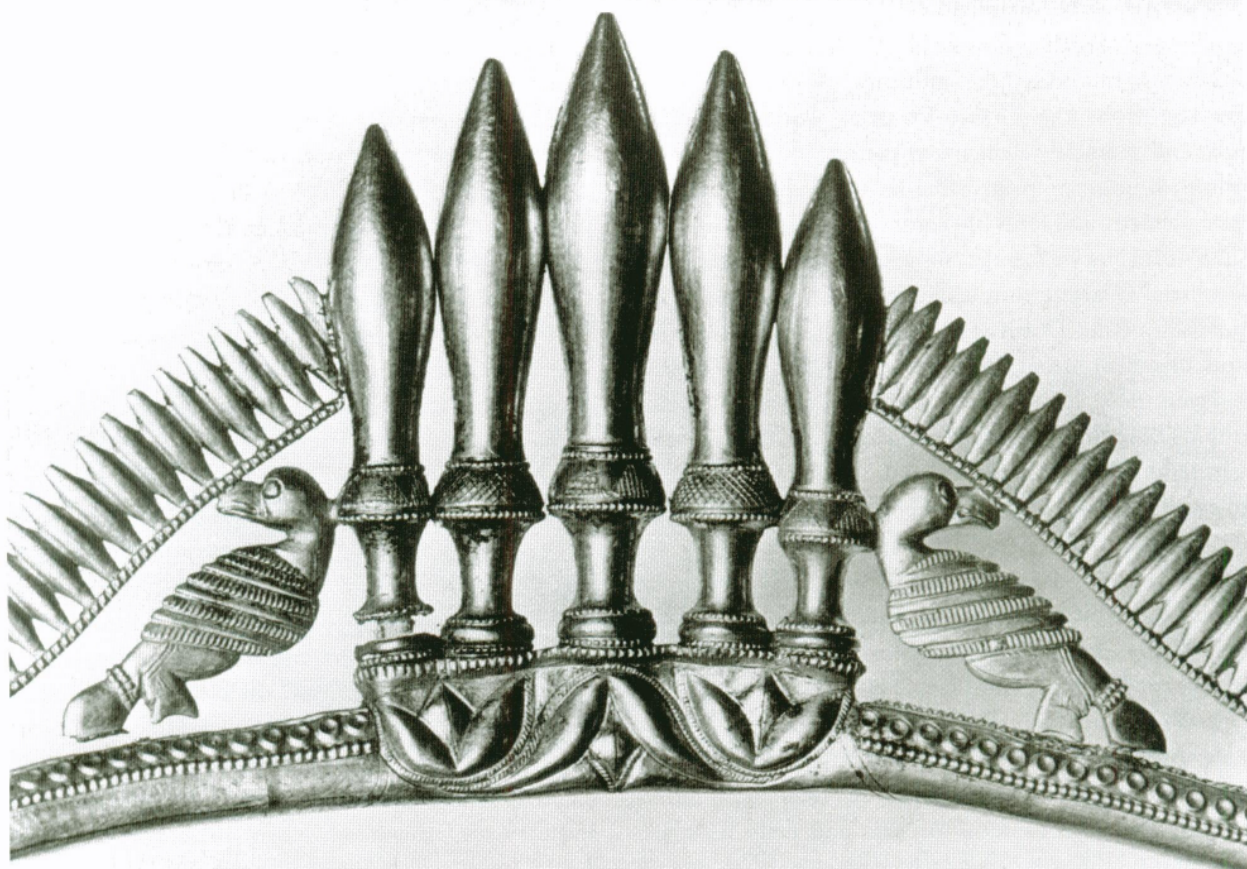


Fig. 5—Merzig-Besseringen, Kr. Merzig-Wadern. Detail of gold neck-ring (original lost), second half of fifth century BC. Total diam. 215mm (photo: Otto Doppelfeld).

graves as a response to the richness—and possibly the funerary customs—of those areas south of the Alps. The list of imports starts with the *situlae*—once thought to be local imitations—and then moves to Etruscan bronzes of many kinds but chiefly beaked flagons and *stamnoi* (Nortmann 2002, esp. Abb. 14). Local workshops soon began to imitate such exotic forms, notably flagons and sieves; as De Navarro said many years ago, ‘Early Celtic art owed much to Celtic thirst’ (De Navarro 1928, 435; Adam 2003).

As to identifying early ‘schools’ or ‘workshops’, in the manner of the Classical archaeologist (more properly usually to be regarded as an art-historian and here we include ourselves), there is even less positive to be said. The gold leaf brooch covers often with coral inlay studied by Alfred Haffner—his Weiskirchen type—seem to form a loose group that extends east into Bohemia and the warrior-grave of Chlum, okr. Rakovník (Fig. 8), but also south to Kleinaspergle (Haffner 1979). No contest, but Haffner has

also conceived of a ‘Weiskirchen group’ named after the contents of the first Weiskirchen barrow and including the makers—certainly plural—of the Basse-Yutz (Moselle) flagons deposited with the unique pair of Etruscan *stamnoi* (Haffner 1993, *contra* J. Megaw and Megaw 1990, esp. 88–9). There is, however, other material that makes the location, if not the existence, of this group more doubtful.

Apart from a few central European outliers, it is now clear that Bohemia, with its rich mineral resources, marked the most easterly extension of the élite trade in Etruscan metalwork associated with the ritual symposium as represented by the Hradišř burial near Písek (Michálek 1977; Chytráček 2002, esp. Abb. 4). While the Chlum gold-covered disc may be regarded as a copy in Bohemian gold of Haffner’s Weiskirchen disc-brooches (Sankot 2002, Abb. 3), there were, as Pavel Sankot and others have been demonstrating, flourishing local specialisations associated with local élites (Chytráček 2000; Sankot 2003). Circular



Fig. 6—(a) Kleinaspergle, Kr. Ludwigsburg. Detail of *Schnabelkanne* handle, c. 400 BC. Ht of attachment c. 70mm (photo: Dr Carl Albiker).
(b) Weiskirchen, Kr. Merzig-Wadern, grave II. Detail of Etruscan stamnos handle, c. 450–400 BC. Ht of face c. 27mm (photo: J. V. S. Megaw).

harness-mounts with carefully scribed curvilinear decoration are a particular feature (Fig. 9a), while the pair from the Hořovičky, okr. Beroun, chariot burial exhibit the so-called leaf-crown (Fig. 9b), ultimately a derivative of Etruscan silen faces found from the Glauberg to the Traisental (R. Megaw and Megaw 2001, 74 and ill. 74, 81–3 and 427; Baitinger and Pinsker 2002, Kat.-Nr. 1, 64). On the other hand, rare local examples of *Maskenfibeln* suggest largely misunderstood, almost archaic, attempts to copy those produced in neighbouring regions. Very much the odd man out is the full-length human figure forming the bow of a brooch from grave 74 of the Manětín-Hrádek cemetery to the north of Plzeň, which has a general resemblance to the 'trick cyclists' that form the legs of the Eberdingen-Hochdorf couch but wears pointed shoes, an early La Tène high fashion borrowed once more from Italy (where else?) (Megaw 1970, no. 31; 2001, ill. 34 and 99; Baitinger and Pinsker 2002, Kat.-Nr. 42) (Fig. 10).

The recent work in and around the Glauberg demonstrates, as does no other site save perhaps the Dürrenberg (Stöllner *et al.* 2003, esp. 179–85), the drawing-power of a major centre. The Basse-Yutz (Moselle) find with its unique pairs of La Tène flagons and Etruscan stamnoi (Fig. 11) demonstrates on a small scale local social status or

economic significance in the ability to command exotic raw materials and disparate craft-skills. On a large scale the Glauberg exhibits power bestowed through the diverse skills of either bronze- and iron-smiths, stonemasons or carpenters. But such diversity has not clarified the question of the origins of the new art style. The picture has undoubtedly become more complex than when, many years ago, we dreamt up the vision of a small group of itinerant specialist engravers (Megaw 1972, esp. 280–4). They were, we suggest, responsible for the embellishment of—amongst other pieces—the Waldalgesheim, Kr. Mainz-Bingen, and Gersheim-Reinheim, Saarpfalz-Kreis, spouted flagons (Fig. 12); to the Belfort scabbard (Megaw 1968) we can add the sword-scabbards and spouted flagon from the Glauberg (Baitinger and Pinsker 2002, Kat.-Nr. 90 and Abb. 169, 176:4–5; Frey 2004, esp. fig. 1, 3–4) and compare this western group of engravers with their eastern counterparts in Bohemia. And how to deal with the engraving on the rim of a Celtic substitute for an Etruscan wine sieve from the second Hoppstädten, Kr. Birkenfeld, barrow (Megaw *et al.* 1992) (Fig. 13)? It has elements that once more one can find on the Hallstatt grave 994 scabbard, but also on the well-known Stupava belt-plaque from western Slovakia. Certainly, one can mount a case for Stupava as a relatively



Fig. 7—Plzeň-Roudná, okr. Plzeň, obj. 320. Fragment of local copy of Attic handled cup, first half of fifth century BC. Max. diam. 185mm (photo: Západočeské muzeum, Plzeň).



Fig. 8—Chlum, okr. Rokycany. Gold plaque with bronze backing fixed with iron rivets, second half of fifth century BC. Length c. 60mm (photo: Národní Muzeum, Prague).

locally produced piece, particularly in view of more recent discoveries from the Traisental, as for example from Ossarn grave 17 (Megaw *et al.* 1989).

Even as the task of identifying individual style groupings is not as easy as we may once have postulated (Megaw 1972; compare Chytráček 2000), there are also some major distributional problems in giving primacy to one or other area as the birth-place of early Celtic art. Given that evidence for imported metal vessels—and their imitations—seems to be restricted almost without exception to the élite burials, which of course include those in Champagne and Bohemia, the same cannot be said of Attic and other Greek pottery, which is almost the converse, with much more being found in settlement contexts both small and large; similar is the occasional occurrence of imported glass. That in some cases such fragmentary exotica could have been regarded as talismans is one possibility, even as we have evidence for the importance attached to imported luxury goods in locally made copies—the Plzeň *kylix* for example.

Reverting to distributions, similar routes were taken by the two main classes of imports as well as occasional exotic

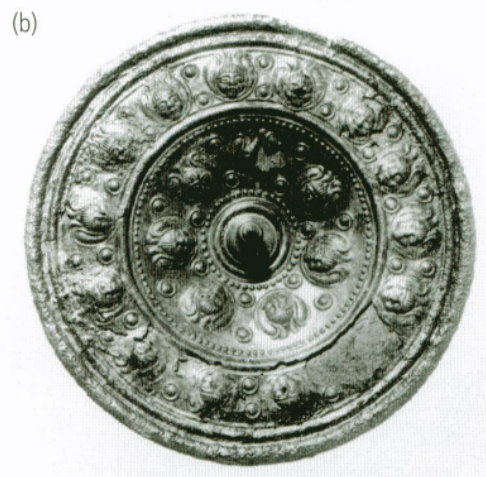
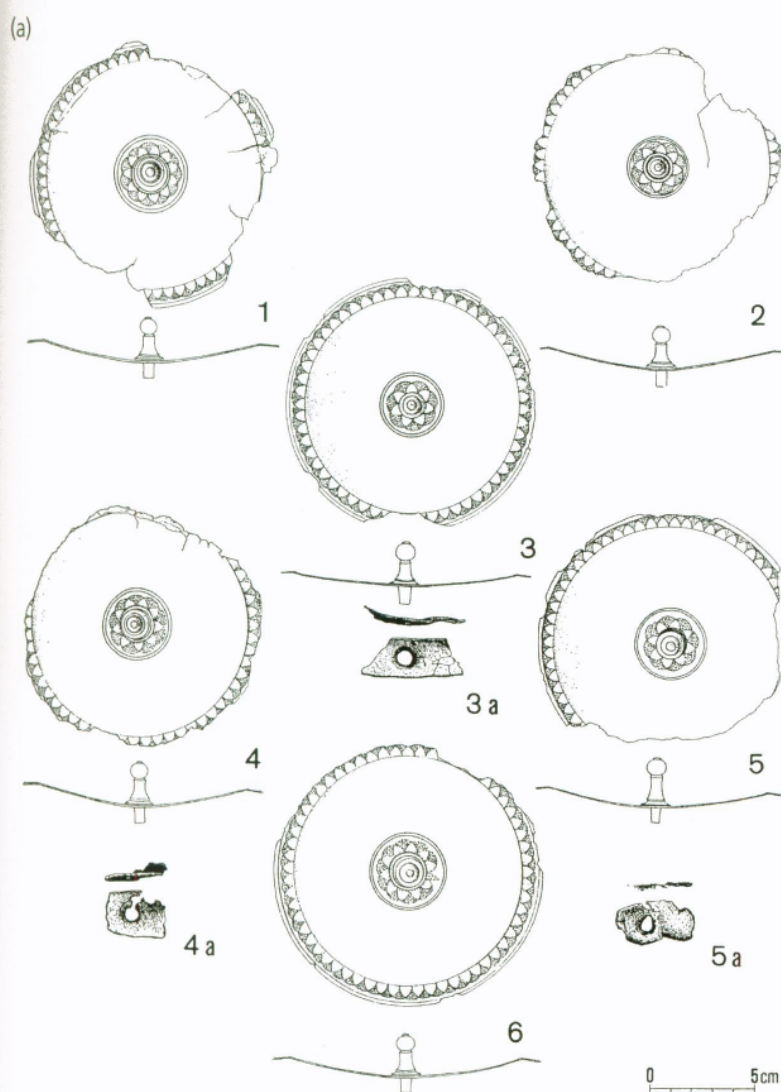


Fig. 9—(a) Mirkovice, okr. Domažlice, barrow IX. Bronze phalerae, second half of fifth century BC (drawing: after Chytráček 2000).

(b) Hořovičky, okr. Rakovník. One of two phalerae, sheet bronze over iron base, second half of fifth century BC. Diam. 150mm (photo: Archeologický ústav AV ČR, Prague).

materials from the Mediterranean and even further afield (coral, shells, glass) in exchange, we must assume, for raw materials—iron, gold and, above all, salt. Here, of course, is the main significance of the Dürrenberg complex, strategically positioned to access communities to the north and south, east and west, not to mention continuity to *der Goldene Steig* (Pauli 1974). As well as evidence for local craft skills—notably wood-turning and fine pottery—there is the miniature nightmare imagery of cast-bronze brooches. The importance of the Dürrenberg in the dissemination not only of raw materials and primary produce but also of high-status

objects cannot be overemphasised, not least since we believe that there must have been links with the eastern side of Austria and the rich finds of the Traisental. If not as primary centres for the development of early Celtic art, these two locations must have played a most important secondary role. We have previously plotted the distribution of three major stylistic groups of early Celtic art, the strongly Classical-influenced material of Jacobsthal's 'Early Style', Frank Schwappach's so-called 'Eastern' compass-based patterns (Megaw 1985, esp. 180–2 and fig. 9.9) and—not our concern here—the late fourth-century 'Vegetal' or



Fig. 10—Manětín-Hrádek, okr. Plzeň-sever, grave 74. Bronze brooch originally with amber inlay, second half of fifth century BC. Length 86mm (photo: Archeologický ústav AV ČR, Prague).

‘Waldalgesheim’ style, which appears only at the end of the period of the élite graves. One may note the position of the Dürrenberg—just about unique in its evidence for objects decorated in all three styles. These three groups may be superimposed on Herbert Lorenz’s regional divisions of funerary rites and associated grave-goods (Lorenz 1978; 1985). The details need not detain us, but it is still valid to state that there is strong evidence that particular objects—including in some cases fine local pottery, as in the case of the unique stamped sherd from a small La Tène settlement at Kanín in north-western Bohemia (Mařík *et al.*, in press) (Fig. 14)—moved across social and political boundaries.

This then raises the question of the location of and the status accorded to early La Tène craftsmen. Despite the arguments offered by Austrian colleagues, it remains impossible to settle on the origin of those craftsmen responsible for the masterwork that is the flagon from Dürrenberg grave 112 (compare Moosleitner 1985; Megaw 1970, no. 72; R. Megaw and Megaw 2001, 76–80; Baitinger and Pinsker 2002, Kat.-Nr. 102). Surely, in the light of the technical and formal similarities with the beaked flagon from the first of the Glauberg élite warrior-graves (Baitinger and Pinsker 2002, Kat.-Nr. 3.1) (Fig. 15a–b), as well as Basse-Yutz (Fig. 11), the vision of the specialist craftsman moving to wherever a commission may occur is, to borrow Jacobsthal’s famous descriptor, a great deal more than just a smile on the face of a Cheshire cat—now you see him, now you don’t. And surely, if the communities of the Dürrenberg area could have commanded on any sort of permanent basis the skills of a metal-smith capable of producing such flagons, there would have been no need for local production of imitations in pottery of the Etruscan *Schnabelkanne* with a distribution from northern Italy to southern Germany (Abels 1992).

The Glauberg, with its location well to the north-east of the Hunsrück-Eifel élites, does not seem an obvious location for permanent crafts centres. Of course, this is not to deny sedentary specialisation or the obvious power of local élites, but with the Basse-Yutz find in mind and the range of both raw materials and metalworking techniques required to produce the pair of flagons, the picture of a master metal-smith specifically commissioned and assisted by a number of specialist craftsmen seems more plausible. While the concept of the itinerant smith as a pioneer in the creation of an artisan class, first proposed in 1930 by Australia’s greatest archaeologist Vere Gordon Childe, still has value, we should also consider the evidence for high status among both the



Fig. 11—Basse-Yutz, Moselle, 1927 find. Pair of La Tène flagons and pair of Etruscan stamnoi, c. 400 BC. Maximum ht of flagons c. 400mm (photo: courtesy of the Trustees of the British Museum).

consumers and the craftsmen supplying them—the warriors of La Gorge Meillet and La Chaussée-sur-Marne were both buried with a collection of craftsmen's tools (for a summary of the evidence see Megaw 1985, 172–9); divine smiths were not only to be found in Valhalla.

This paper has in no way fully answered the question posed by its title but it may suffice to have examined some issues; certainly we would suggest that we should be looking for several core areas rather than a single birth-place. Concerning belief systems, with the exception of the indestructible druids, one reads relatively little these days of Iron Age religion. Ian Stead, in writing of a related Iron Age warrior-élite, that of east Yorkshire, postulates major changes brought about by, as he puts it, 'at least one immigrant who had a powerful effect on the religious life of a tightly defined community' (Stead 1991, 184). On the Continent, we are not dealing with immigrants but rather with the emergence of an élite controlled by a number of warrior-heroes whose

existence is given lasting form by the stone knights of the Glauberg and, only slightly earlier, Hirschlanden. Elaborating Echt's 2004 model of a common warrior-élite ideology over-arching local cultural units and stretching from Bohemia to Champagne, early Celtic art may be seen as the physical manifestation of that belief system. Ludwig Pauli's 1985 evocation of the beginnings of La Tène culture in central Europe having been due to a major period of uncertainty expressing itself in the troubling imagery of early La Tène art is again not to be totally discarded. In many senses early Celtic art has a very definite genesis. But other areas of research remain virtually unexplored; for example, there is a need to identify further the main or most important points of transformation from Mediterranean models into indigenous variations, and of course the most difficult and also the most vital question—how did the early Celtic artists and craftsmen collect their know-how, and, indeed, does our contemporary distinction between artist

Fig. 12—Details of the work of the putative 'specialist engravers'. **1** Waldalgesheim, Kr. Kreuznach, spouted flagon; **2** Gersheim-Reinheim, Saarpfalz-Kreis, spouted flagon; **3** Hoppstädten, Kr. Birkenfeld, barrow 2, sieve (see Fig. 13); **4** Weitbruch, Kr. Birkwald, barrow 1, grave 1, flagon mount; **5–6** Meroux (formerly wrongly cited 'Bavilliers'), Territoire de Belfort, sword-scabbard. All bronze, later fifth century BC. Various scales (drawing: after Megaw 1970).

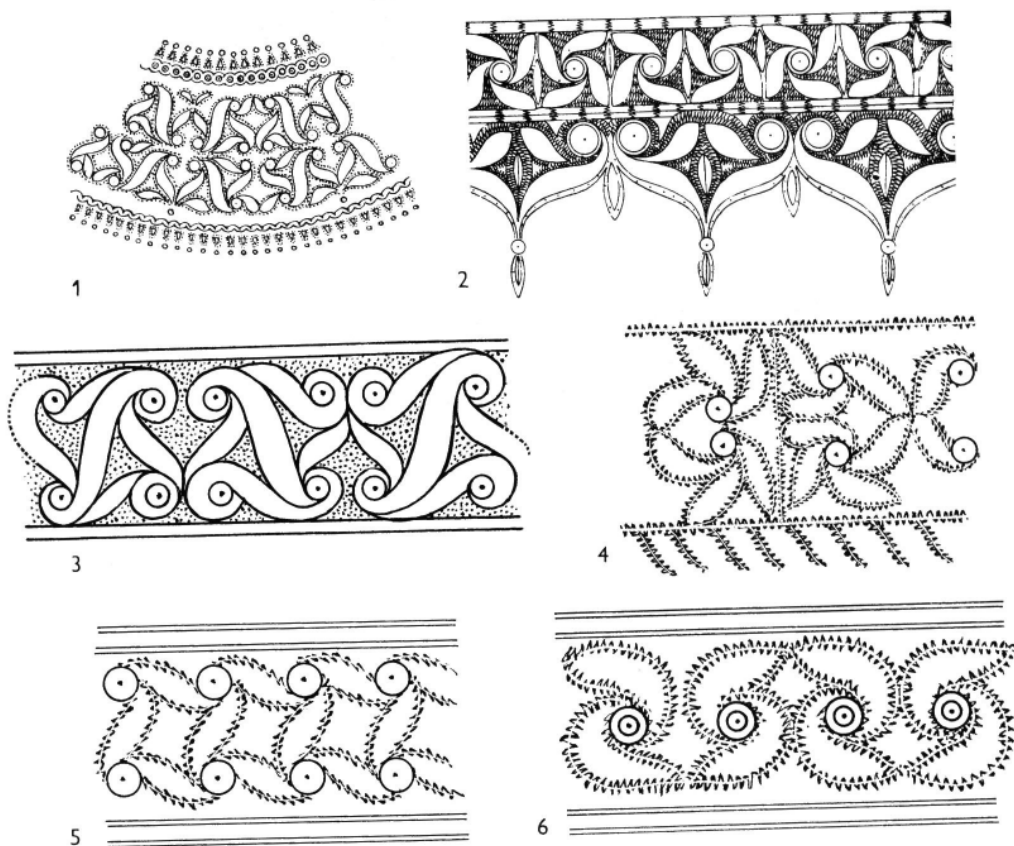


Fig. 13—Hoppstädten, Kr. Birkenfeld barrow 2. Bronze sieve (reconstruction), later fifth century BC. Diameter (without handle) 220mm (drawing: F.-J. Dewald).

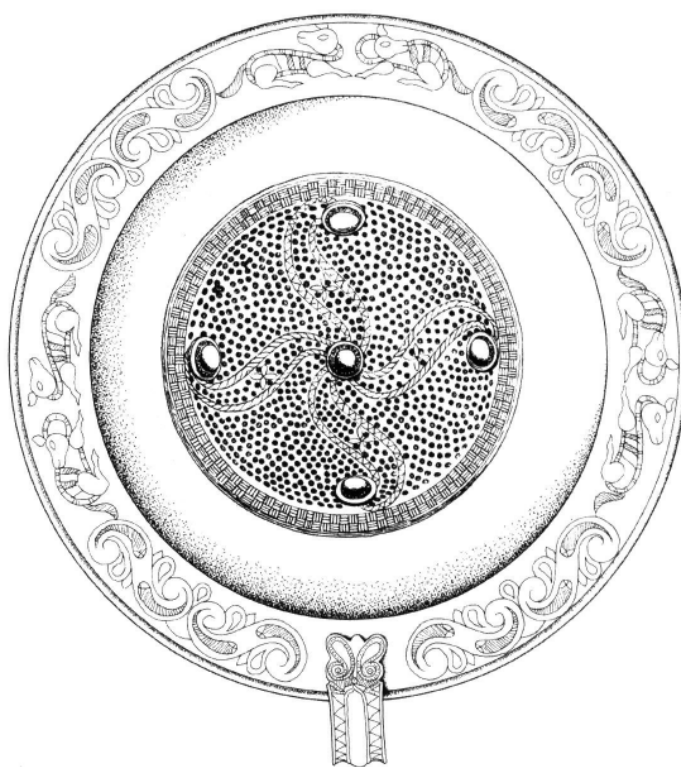


Fig. 14—Kanín, okr. Podebrady.
Stamped sherd, c. 400 BC.
Width of sherd 65mm (photo:
Jan Mařík).



(a)



Fig. 15—(a) Dürrnberg bei
Hallein, Ld. Salzburg. Bronze
flagon, late fifth century BC. Ht
485mm (photo: Salzburger
Museum Carolino-Augustum).
(b) Glauburg-Glauberg,
Wetteraukreis. Bronze flagon,
late fifth century BC. Ht 525mm
(photo: U. Seitz-Gray).

(b)



and craftsman have any validity in an Iron Age context? The search for origins still presents us with many obstacles to surmount. Thirty-five years ago Jürgen Driehaus concluded a review of our first attempt at an overview of European Iron Age art with the words: 'Jacobsthals Erben haben es nicht leicht' (1972, 616).

How right he was.

Note

This paper, a revised version of one given at the 2007 Zadar meeting of the European Association of Archaeologists, honours an old friend and archaeological sparring partner and celebrates many encounters in many countries with those once dubbed the early Celtic art mafia. Unfortunately the highly relevant study by Frey (2005) was brought to our attention too late to be properly considered here.

References

- Abels, B.-U. 1992 Eine Tonschnabelkanne von der Ehrenbürg in Oberfranken. *Archäologisches Korrespondenzblatt* 22, 79–92.
- Adam, A.-M. 2003 Importation et imitation de bronzes méditerranéens en milieu celtique: quelques problèmes de méthode. *Archaeologia Mosellana* 3, 361–74.
- Baitinger, H. and Pinsker, B. (eds) 2002 *Das Rätsel der Kelten vom Glauberg: Glaube–Mythos–Wirklichkeit*. Stuttgart. Theiss.
- Bašta, J., Bařtová, D. and Bouzek, J. 1989 Die Nachalmung einer attische rotfigurigen Kylix aus Pilsen-Roudná. *Germania* 67, 463–76.
- Chytráček, M. 2000 Élite burials in Bohemia from the 7th–5th century BC and the beginnings of a new art-style. In A. Villes and A. Bataille-Melkon (eds), *Fastes des Celtes entre Champagne et Bourgogne aux VIIe–IIIe siècles avant notre ère*, 359–77. Mémoires de la Soc. Arch. Champenoise 15. Reims.
- Chytráček, M. 2002 Südwestböhmen im überregionalen Verkehrsnetz der Hallstatt- und Frühlatènezeit. *Archäologische Arbeitsgemeinschaft Ostbayern/West- und Südböhmen* 11, 121–42. Rahden/Westf. Verlag Marie Leidorf.
- De Navarro, J.M. 1928 Massilia and early Celtic culture. *Antiquity* 2, 423–42.
- Driehaus, J. 1972 [Review of Megaw 1970.] *Bonner Jahrbücher* 172, 613–16.
- Echt, R. 2004 Äusserer Anstoss und innerer Wandel—drei Thesen zur Entstehung der Latènekunst. In M. A. Guggisberg (ed.), *Die Hydria von Grächwil: Zur Funktion und Rezeption mediterraner Importe in Mitteleuropa im 6. und 5. Jahrhundert v. Chr.*, 203–15. Schriften des Bernischen Historischen Museums 5. Bern.
- Egg, M., Hauschild, M. and Schönfelder, M. 2006 Zum frühlatènezeitlichen Grab 994 mit figural verzierter Schwertscheide von Hallstatt (Oberösterreich). *Jahrbuch des Römisch-Germanischen Zentralmuseums* 53, 175–216.
- Eibner, A. 2001 Die Eberjagd als Ausdruck eines Heroentums? Zum Wandel des Bildinhalts in der Situlenkunst am Beginn der Latènezeit. In B. Gediga et al. (eds), *Sztuka epoki brązu i wczesnej epoki żelaza w Europie środkowej/Die Kunst der Bronzezeit und der frühen Eisenzeit in Mitteleuropa*, 231–79. Prace Komisji Archeologicznej 14/Biskupinskie Prace Archeologiczne 2. Wrocław/Biskupin.
- Frey, O.-H. 1996 Zu den figürlichen Darstellungen von Waldalgesheim. In T. Stöllner (ed.), *Europa celtica: Untersuchungen zur Hallstatt- und Latènekultur*, 95–115. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 10. Marburg. Espelkamp.
- Frey, O.-H. 1998 The stone knight, the sphinx and the hare: new aspects of early Celtic art. *Proceedings of the Prehistoric Society* 64, 1–14.
- Frey, O.-H. 2000 Keltische Grossplastik. *Reallexikon der Germanischen Altertumskunde* 16 (2nd edn), 395–407. Berlin and New York. W. de Gruyter.
- Frey, O.-H. 2002 Menschen oder Heroen? Die Statuen vom Glauberg und die frühe keltische Grossplastik. In H. Baitinger and B. Pinsker (eds), *Das Rätsel der Kelten vom Glauberg: Glaube–Mythos–Wirklichkeit*, 208–18. Stuttgart. Theiss.
- Frey, O.-H. 2004 A new approach to early Celtic art. *Proceedings of the Royal Irish Academy* 104C, 107–29.
- Frey, O.-H. 2005 Zum Kunsthandwerk der Späthallstatt- und Frühlatènezeit. Überlegungen zur Entstehung der Frühlatènekultur. In C. Dobiat (ed.), *Reliquiae Gentium. Festschrift für Horst Wolfgang Böhme zum 65. Geburtstag*, Teil 1, 127–34. Rahden/Westf. Verlag Marie Leidorf.

- Frey, O.-H. 2006 Die Kunst der Kelten als Gegenstand der prähistorischen Forschung. In S. Rieckhoff (ed.), *Celtes et Gaulois: l'archéologie face à l'histoire 1. Celtes et Gaulois dans l'histoire, l'historiographie et l'idéologie moderne*, 15–31. Bibracte 12/1. Glux-en-Glenne.
- Frey, O.-H. 2007 Über die Ostalpen zur Keltiké: Beziehungen zwischen der Situlen-/Este-Kunst und dem Latène A-Kreis. In M. Blečić et al. (eds), *Scripta praehistorica in honorem Biba Teržan*, 777–88. Situla 44. Ljubljana. National Museum of Slovenia.
- Guggisberg, M.A. 2006 L'art celtique: spécificité et points de convergence. In M. Szabó, *Celtes et Gaulois: l'archéologie face à l'histoire 3. Les Civilisés et les Barbares du V^e au II^e siècle avant J.-C.*, 229–47. Bibracte 12/3. Glux-en-Glenne.
- Haffner, A. 1979 Die frühlatènezeitlichen Goldscheiben vom Typ Weiskirchen. In *Festschrift 100 Jahre Rheinisches Landesmuseum Trier*, 163–71. Trierer Grabungen und Forschungen 14. Trier.
- Haffner, A. 1993 Die keltischen Schnabelkannen von Basse-Yutz in Lothringen. *Archaeologia Mosellana* 2, 339–60.
- Jacobsthal, P.F. 1941 Imagery in early Celtic art. *Proceedings of the British Academy* 27, 301–20.
- Jacobsthal, P.F. 1944 *Early Celtic art* [rev. edn, 1969]. Oxford University Press.
- Kimmig, W. (ed.) 1988 *Das Kleinaspergle: Studien zu einem Fürstengrabhügel der frühen Latènezeit bei Stuttgart: Theiss. Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg* 30. Stuttgart. Theiss.
- Kossack, G. 1974 Prunkgräber. In G. Kossack and G. Ulbert (eds), *Studien zur vor- und frühgeschichtlichen Archäologie*, 3–33. Münchner Beiträge zur Vor- und Frühgeschichte, Ergänzungsband 1. München. C.H. Beck'sche Verlag.
- Krause, D. 1999 Le symposium aristocratique pendant le Hallstatt final et La Tène ancienne dans le sud-ouest de l'Allemagne. In A. Villes and A. Bataille-Melkon (eds), *Fastes des Celtes entre Champagne et Bourgogne aux VII^e–III^e siècles avant notre ère, Actes du Colloque de l'A.F.E.A.F. Troyes, 25–27 mai 1995 = Soc. Arch. Champenoise Mémoire* 15, suppl. au *Bulletin* 4, 181–6.
- Krause, D. 2003 Cultural change and settlement development in the 'Arduenna Silva' from 600 to 50 BC. In J. Bourgeois, I. Bourgeois and B. Cherretté (eds), *Bronze Age and Iron Age communities in north-western Europe*, 151–73. Brussels. Vlaams Kennis- en Cultuurforum.
- Krause, D. 2006 The prehistory of the Celts in south-west Germany: centralisation processes and Celtic ethnogenesis in the heart of Europe. In D. Vitali (ed.), *Celtes et Gaulois: l'archéologie face à l'histoire 2. La préhistoire des Celtes*, 131–42. Bibracte 12/2. Glux-en-Glenne.
- Lorenz, H. 1978 Totenbrauchtum und Tracht. Untersuchungen zur regionalen Gliederung der frühen Latènezeit. *Bericht der Römisch-Germanischen Kommission* 59, 1–380.
- Lorenz, H. 1985 Regional organisation in the western Early La Tène province. In T. C. Champion and J. V. S. Megaw (eds), *Settlement and society: aspects of west European prehistory in the first millennium B.C.*, 109–22. Leicester University Press.
- Mařík, J., Megaw, J.V.S. and Megaw, M.R. (in press) The stamped sherd from the multi-period settlement of Kanín, okr. Podebrady.
- Megaw, J.V.S. 1965–6 Two La Tène finger rings in the Victoria and Albert Museum London: an essay on the human face and early Celtic art. *Prähistorische Zeitschrift* 43–4, 96–166.
- Megaw, J.V.S. 1967 Ein verzierter Frühlatène-Halsring im Metropolitan Museum of Art, New York. *Germania* 45, 50–9.
- Megaw, J.V.S. 1968 Une épée de la Tène I, avec fourreau décoré. *Revue archéologique de l'Est et du Centre-Est* 19, 129–44.
- Megaw, J.V.S. 1970 *Art of the European Iron Age: a study of the elusive image*. Bath. Adams and Dart.
- Megaw, J.V.S. 1972 Style and style groupings in continental early La Tène art. *World Archaeology* 3, 276–92.
- Megaw, J.V.S. 1985 Meditations on a Celtic hobby-horse: notes towards a social archaeology of Iron Age art. In T. C. Champion and J. V. S. Megaw (eds), *Settlement and society: aspects of west European prehistory in the first millennium B.C.*, 161–91. Leicester University Press.
- Megaw, J.V.S. 2003 Celtic foot(less) soldiers: an iconographic note. *Gladius* 23, 61–70.
- Megaw, J.V.S. 2005 Early Celtic art without Scythians? A review. In H. Dobrzanska, V. Megaw and P. Poleska (eds), *Celts on the margin: studies in European cultural interaction 7th century BC–1st century AD dedicated to Zenon Wozniak*, 33–47. Kraków. Institute of Archaeology and Ethnology of the Polish Academy of Science.

- Megaw, J.V.S. and Megaw, M.R. 1990 *The Basse-Yutz find: masterpieces of Celtic art. The 1927 discovery in the British Museum*. London. Society of Antiquaries of London.
- Megaw, J.V.S., Megaw M.R. and Neugebauer, J.-W. 1989 Zeugnisse frühlatènezeitlichen Kunsthandwerks aus dem Raum Herzogenburg, Niederösterreich. *Germania* 67, 476–517.
- Megaw, J.V.S., Megaw, M.R. and Nortmann, H. 1992 Neue Untersuchungen zum frühlatènezeitlichen Siebtrichter von Hoppstädten. *Trierer Zeitschrift* 55, 105–28.
- Megaw, R. and Megaw, V. 2001 *Celtic art from its beginnings to the Book of Kells* (2nd edn). London. Thames and Hudson.
- Megaw, R. and Megaw, V. 2003 The Dürrnberg: centre for craft skills or importer of luxury goods? In T. Stöllner *et al.*, 'The economy of Dürrnberg-bei-Hallein: an Iron Age salt-mining centre in the Austrian Alps'. *Antiquaries Journal* 83, 177–9.
- Megaw, R. and Megaw, V. 2007 Celtic lyres on a Celtic kylix? A further note on the copy of an Attic red figure two-handled cup from Plzeň-Roudná. *Archeologické rozhledy* 59 (4), 799–804.
- Michálek, J. 1977 Knižecí mohyly z časně doby laténské u Hradiště, okr. Písek. *Archeologické rozhledy* 29, 634–45.
- Moosleitner, F. 1985 *Die Schnabelkanne vom Dürrnberg: Ein Meisterwerk keltischer Handwerkskunst*. Schriftreihe des Salzburger Museums Carolino Augusteum 7. Salzburg.
- Nortmann, H. 2002 Modell eines Herrschaftssystems: Frühkeltische Prunkgräber der Hunsrück-Eifel-Kultur. In H. Baitinger and B. Pinsker (eds), *Das Rätsel der Kelten vom Glauberg: Glaube–Mythos–Wirklichkeit*, 33–46. Stuttgart. Theiss.
- Nortmann, H. 2003 Dead warriors and their communities in the Hunsrück-Eifel-culture. In J. Bourgeois, I. Bourgeois and B. Cherretté (eds), *Bronze Age and Iron Age communities in north-western Europe*, 135–50. Brussels. Vlaams Kennis- en Cultuurforum.
- Pauli, L. 1974 Der Goldene Steig: Wirtschaftsgeographisch-archäologische Untersuchungen im östlichen Mitteleuropa. In G. Kossack and G. Ulbert (eds), *Studien zur Vor- und Frühgeschichtlichen Archäologie*, 115–39. Münchner Beiträge zur Vor- und Frühgeschichte, Ergänzungsband 1. München. C.H. Beck'sche Verlag.
- Pauli, L. 1985 Early Celtic society: two centuries of wealth and turmoil in central Europe. In T. C. Champion and J. V. S. Megaw (eds), *Settlement and society: aspects of West European prehistory in the first millennium B.C.*, 23–43. Leicester University Press.
- Reinecke, P. 1911 *Altertümer unserer heidnischen Vorzeit* 5. Römisch-Germanisches Zentralmuseum, Mainz.
- Sankot, P. 2002 Eisenzeitliches Kunsthandwerk als Spiegel von Fernkontakten. In A. Lang and V. Salač (eds), *Fernkontakte in der Eisenzeit—Fálkové kontakty v dobe zelezné*, 83–101. Liblice. Praha. Archäologisches Institut der Akademie der Wissenschaften der Tschechischen Republic.
- Sankot, P. 2003 Nouvelles connaissances sur l'artisanat laténien des Ve–IIIe siècles avant J.-C. en Bohême. In O. Buchsenschutz *et al.* (eds), *Décors, images et signes de l'âge du Fer européen: Actes du XXVIe Colloque de l'AFEAF*, 129–43. Revue Arch. du Centre de la France Suppl. 24. Tours.
- Stead, I.M. 1991 *Iron Age cemeteries in East Yorkshire*. English Heritage Archaeological Reports 22. London.
- Stöllner, T. *et al.* 2003 The economy of Dürrnberg-bei-Hallein: an Iron Age salt-mining centre in the Austrian Alps. *Antiquaries Journal* 83, 123–94.
- Trefny, M. 2008 Attická červenofigurová keramika z laténského sídlíste v Praze-Ruzyni, poloha Joviny. *Archeologické rozhledy* 60 (1), 114–26.
- Von Hase, F.-W. 2000 Zur Gießform der figürlichen Henkelatlasche von der Heuneburg. In W. Kimmig (ed.), *Importe und mediterrane Einflüsse auf der Heuneburg: Heuneburgstudien* 11, 177–95. Römisch-Germanische Forschungen 59. Mainz. Philipp von Zabern.

The Celtic *horror vacui* and its demise on the Continent. An essay on a La Tène fibula

Felix Müller and Geneviève Lüscher

The discipline of prehistoric archaeology has always received its most decisive impulses from man-made artefacts. Their context within an excavation, their chronological position and the interpretation of their distribution throughout a particular region reveal the most important information.

It is imperative that the precise study of the individual artefact forms the starting point of an investigation in order to ascertain its manufacture, function and chronological position (Raftery 1988). The second step within scientific research is the meticulous compilation of finds collections and the methodical advancement of overall studies of the artefacts throughout particular territories and more extended regions; thanks to these, prehistoric archaeology is in a position to make statements that come quite close to constituting historical fact (e.g. Raftery 1983; 1984). It is these studies that eventually cumulate in works of overview that are as important to scientific research as they are to the wider public. If their quality is deserving of international attention, they are sometimes also translated into other languages (Raftery 1994; 2006; forthcoming). Taking prehistoric archaeology as a historic science in a wider sense raises archaeological finds to the position of records that must be interpreted in all their facets. The information contained in these artefacts, found below ground and then stored in museums, is almost inexhaustible. Modern methods of analysis continue to offer new opportunities to ask research questions of artefacts that have long been discovered and that only appear to have been entirely investigated. It is a common occurrence that a well-known artefact reveals additional information and leads to new questions and insight when a detailed autopsy is conducted or when it is examined from a new perspective.

The hidden ornament

The detailed examination of an archaeological find can thus prompt considerations that reach far beyond the actual item. An early La Tène bronze fibula from the Historical Museum in Bern may serve as a case in point. According to the nineteenth-century inventory books, it was found in a place

called Rickenbach. Its history of discovery, however, remains rather obscure, and the localisation of the find-spot is further hampered by the fact that there are at least nine locations in Switzerland with the same name! According to the initial publication of 1867, the fibula came from 'sépultures post-romaines', i.e. from post-Roman tombs (Bonstetten 1867, 15). In addition, the hand-written catalogue of the Bonstetten collection of 1873 contains the remark 'ruines romaines', i.e. Roman ruins. Both statements make a strong case for the community of Rickenbach near Olten in Canton Solothurn. According to the Solothurn Canton Archaeologist, Pierre Harb, both Roman settlement remains and early medieval burials were unearthed in the nineteenth century in the 'Bündtenrain' area. A bronze bracelet from the same site is also mentioned in the records; both artefacts, the fibula and the bracelet (Figs 1 and 2), undoubtedly date from the early La Tène period. They probably came from one or several tombs that were not recognised as such during the nineteenth-century excavations. The find-spot of Rickenbach near Olten is located almost exactly at the centre of the triangle Bern–Zurich–Basel.

With a length of 9.2cm and a weight of 45.1g, the fibula is unusually large and heavy, and its finish also appears to be somewhat coarse (Fig. 1). It is preserved intact except for its missing pin. A typical characteristic is the elongated, low and flat bow. It is a Münsingen-type fibula. A rather unusual feature for this type of fibula—though not for this period—is the construction of its spring with an internal chord. The disc-shaped inlay would originally have consisted of several parts; only the core element survives, however, and is affixed by a rivet. This inlay consists of a white material, which may be bone.

The Deisswil-type bracelet is a bronze strap with wavy contours (Fig. 2). The external surface is decorated with an engraved pattern of diagonal lines alternating with ring-and-dot motifs, which is characteristic of this type of bracelet. The two overlapping ends are interlinked by means of a small pin. Next to the clasp the bracelet widens into a disc shape, which again displays a white inlay, riveted and glued into place.

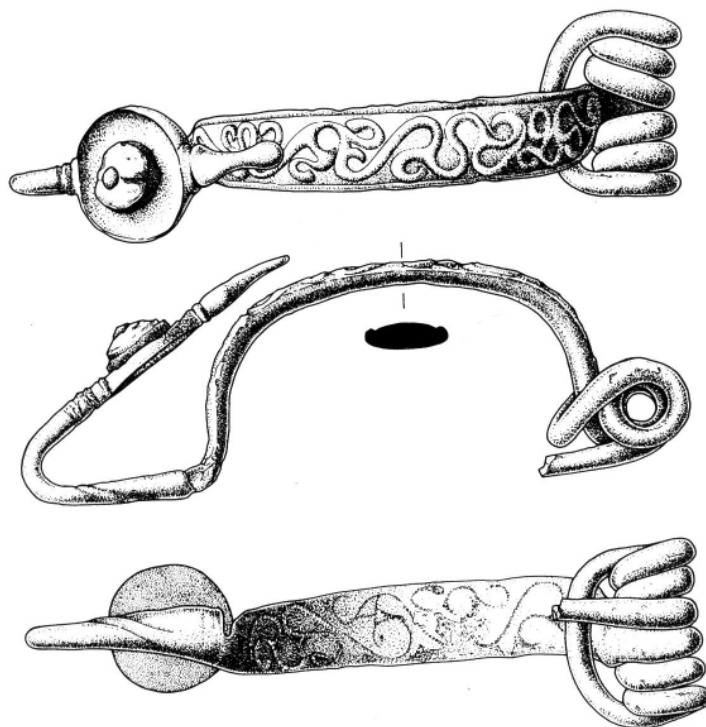


Fig. 1—Early La Tène fibula from Rickenbach, Canton Solothurn, Switzerland. Bronze, length 9.2cm.

The chrono-typological positioning of these two pieces of jewellery, when compared with Münsingen-Rain (Hodson 1968), creates no difficulties. There, this type of fibula and the Deisswil-type bracelet belong to horizons E to G after Hodson 1968, which corresponds approximately with Reinecke's La Tène B1.

In his first publication of the find, Gustav von Bonstetten already noted the fact that the bow of the fibula is decorated not only on its ridge but also on its underside. He recorded this both in writing and by means of illustrations in his expertly devised folio volume published in 1867 (Bonstetten 1867, 15; pl. 13, 2 and 3). The decoration on the back of the fibula bow consists of an embossed wave pattern; a similar motif is worked into the underside of the body of the fibula. Treatments of this fibula in subsequent works no longer mentioned this odd feature, either because the initial publication was not known to the authors or because they were not in a position to inspect the original find (Jacobsthal 1944; Megaw 1970; Frey 1972; Kruta 1977).

The idea, however, of hidden decoration on a fibula is not quite as unusual as it seems at first glance. Every now and then, undersides of foot discs, catch-plates or, less often, bows are decorated; one must bear in mind, however, that the surfaces of these parts of a fibula are most exposed to wear, which means that often only traces of these decorations survive (Fig. 3).

Analysis of the ornaments

The ornaments on the upper side of the Rickenbach fibula run along the entire length of the bow, continue underneath the disc, and run in between the coils of the spring. This suggests that they were already applied during casting or immediately thereafter. It is practically impossible to ascertain whether they were already incorporated in the wax model or whether they were subsequently worked into the bronze body. They would definitely have been applied, however, before the foot and the disc were bent back onto the bow, and before the pin was hammered out and wound



Fig. 2—Early La Tène Deisswil-type bracelet. Rickenbach, Canton Solothurn, Switzerland. Bronze, inner diameter 5.3cm.

to create the spring. Even harder to determine is the time when the decoration on the underside was applied; in theory, this could have been done quite a while after the fibula had been finished. Its rather linear design was executed in densely placed punched dots. The two motifs on the upper and underside hardly differ, which indicates that they were either applied by the same hand or that one motif was an attempt at imitating the other.

Both tendrils are of an irregular pattern and show undefined transitions and breaks (Fig. 4). Their basic element consists of a horizontal S-figure ending in triskeles at both ends, which is often used in Celtic ornamentation (Fig. 5). Several of these elements set in a series form a tendril A1 as defined by Stéphane Verger; the axially symmetrical reflection of tendril A1 results in Verger's tendril A2a. Both variants are typical features of the Waldalgesheim or Vegetal Style (*style végétal continue*, as it is known in French research; Verger 1989). Both forms are represented on the fibula from Rickenbach. Here, however, they appear to be segments cut out from a larger pattern and are linked together in awkwardly executed transitions. There is an air of confusion rather than refinement about the piece.

The central link in tendril A2a (after Verger) can also be viewed as a Celtic version of a strongly stylised palmette (a

so-called fan) with tendrils extending to both sides (Kruta 1977, 24). In grave 48 at Münsingen-Rain, the motif occurs on a fibula dating from La Tène B1 and is the earliest occurrence of the Waldalgesheim Style, based on the horizontal stratigraphy and combination statistics (Müller 1998); a later piece came from the actual tomb of Waldalgesheim (Fig. 6). The two types of tendril A1 and A2a are largely of the same date and of a similar distribution (Fig. 7). While the motifs on the Rickenbach fibula are slightly shrouded and executed in a less than precise manner, its décor fits in very well with the wider context of the Waldalgesheim Style, dating from the second half of the fourth century BC.

In its general design the fibula from Rickenbach is closely related to a group of Bernese fibulae whose finishing is, however, more careful and stylistically confident. The motifs of these fibulae are more precisely placed and the frame-like edging on either side is usually ribbed, unlike the Rickenbach find, where it is smooth.

A veritable prototype in this group would be the silver fibula from Schosshalde in Bern (Fig. 8). Mediterranean influences and Celtic characteristics have come together here in a special way. North of the Alps, silver was otherwise hardly worked at all, and the tendril pattern, carved with the

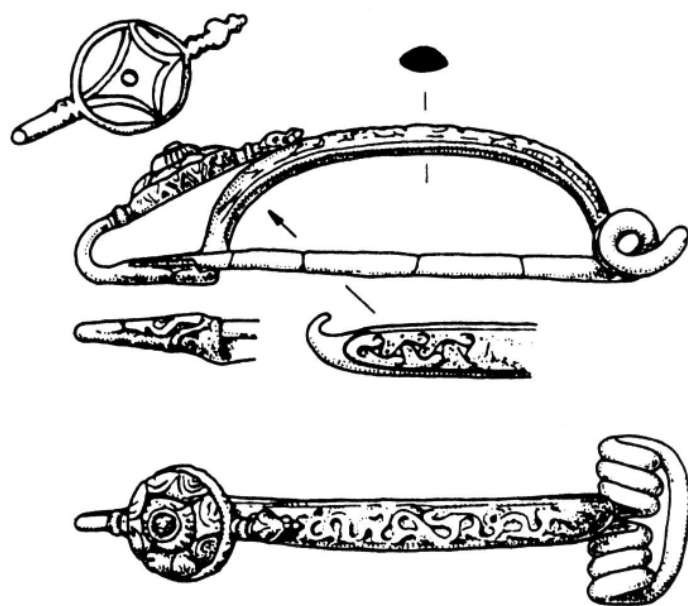


Fig. 3—Fibula from Stettlen-Deisswil, tomb 31. Bronze, length 8.3cm.

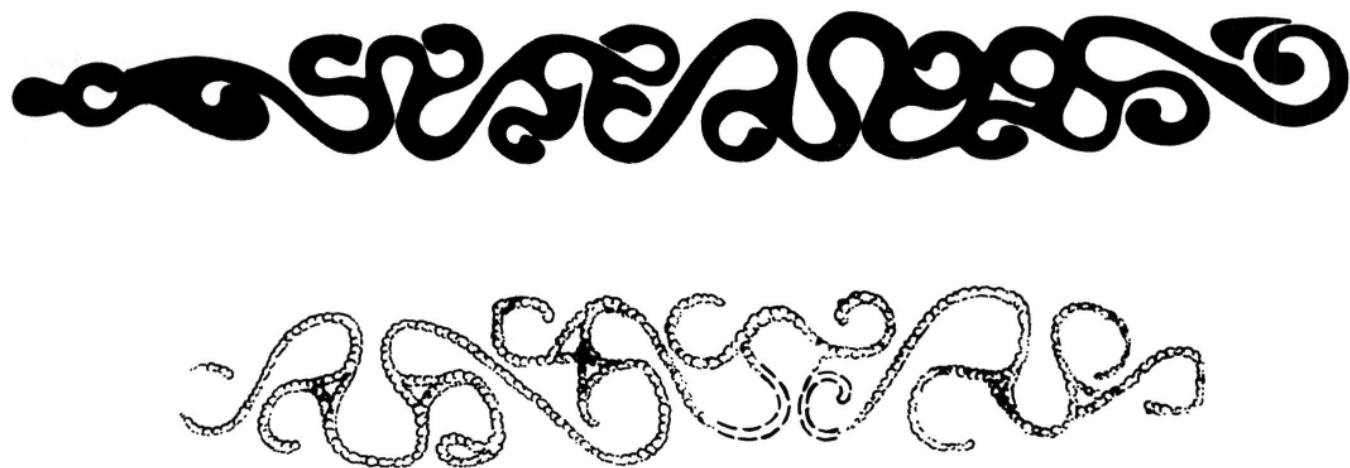


Fig. 4—Fibula from Rickenbach. Tendril patterns on the upper and underside.

highest precision, appears to have been adopted directly from Greek compositions with only slight variations. The transition and the beginning of the Vegetal Style in Celtic art are uniquely tangible here. This has previously led to the assumption that the Schosshalde fibula was made in Upper Italy (Kruta 1977, 29). The basic pattern in the decoration of its bow consists of scrolls of S-shapes arranged head-to-head beside each other. The same pattern was adopted and developed further on contemporaneous fibulae throughout the region (Fig. 9). These belong to the Bernese group mentioned above, which includes at least nine further examples, all found in the two known cemeteries of Münsingen and Stettlen-Deisswil near the city of Bern (Müller 1998; Rey 1999). The two sites are only about 10km from each other.

Shared characteristics among this group of fibulae are the rich decoration in the Waldalgesheim Style and its typological derivatives, and often also the rather inconspicuous detail of a ribbed edging that follows the tendril motif along the back of the bow. Give or take two or three generations, they can be dated to the second half of the fourth century. Their occurrence is strictly limited to the local area: not a single comparable fibula has been found in

the area to the west of Bern and stretching as far as Lake Geneva, despite the fact that the region is archaeologically well known thanks to the cemeteries of Vevey and Saint-Sulpice (Kaenel 1990). A close parallel to the Bernese examples is a richly decorated find of unknown provenance that is kept in the Musée des Antiquités Nationales in Saint-Germain-en-Laye (Kruta 1977, fig. 8,1).

The similarities between the plant motifs of the Waldalgesheim Style and their Mediterranean models appear to have diminished rather quickly. The subsequent development tended towards a reduction to basic elements of form, i.e. to the Plastic Style, or trailed off into a chaotic dissolution into individual elements. This development happened both to a staggered time-line and simultaneously (Müller 1998).

The significance of the ornament

The peculiar idea of decorating pieces of jewellery in places that are not even visible is not limited to fibulae. The principle is clearly demonstrated on a torc only recently discovered in Gehweiler-Oberlöstern in the Hunsrück region (Reinhard 2004, 92–9). The flattened ornamented terminals that would have been lying on the chest of its wearer are decorated both on the upper and the underside. It displays a Waldalgesheim tendril with a red glass paste edging on one hand and a simple engraving, also in the Vegetal Style, on the other. This allows for this piece of jewellery to be worn either way. The excavator, Walter Reinhard, raises the question of whether the more splendidly decorated side with the glass inlay may have been made specifically for the tomb. The surface, however, shows strong signs of wear.

The possibility of wearing the jewellery in various ways does not apply to the fibulae mentioned above, as their decoration always remains hidden, no matter what way they are worn. Did it maybe provide a guileful and secret amusement to the owner and wearer? One may be reminded of the many cases of decorations on torcs that are orientated towards the wearer, despite the fact that she would not have been able to see them because they would have been too close to her chin. The gold torcs from Erstfeld are a very nice example of this (Guggisberg 2000). The important feature, therefore, was the awareness of the wearer and her relationship with her personal jewellery.

In some cases, the ornaments are so meticulously

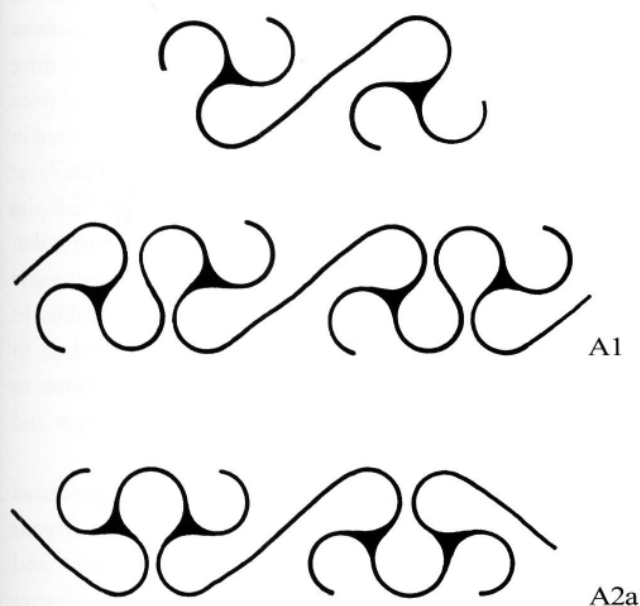


Fig. 5—Design of a Celtic wave-tendril. The basic element with tendril types A1 and A2a derived from it (after Verger 1989).

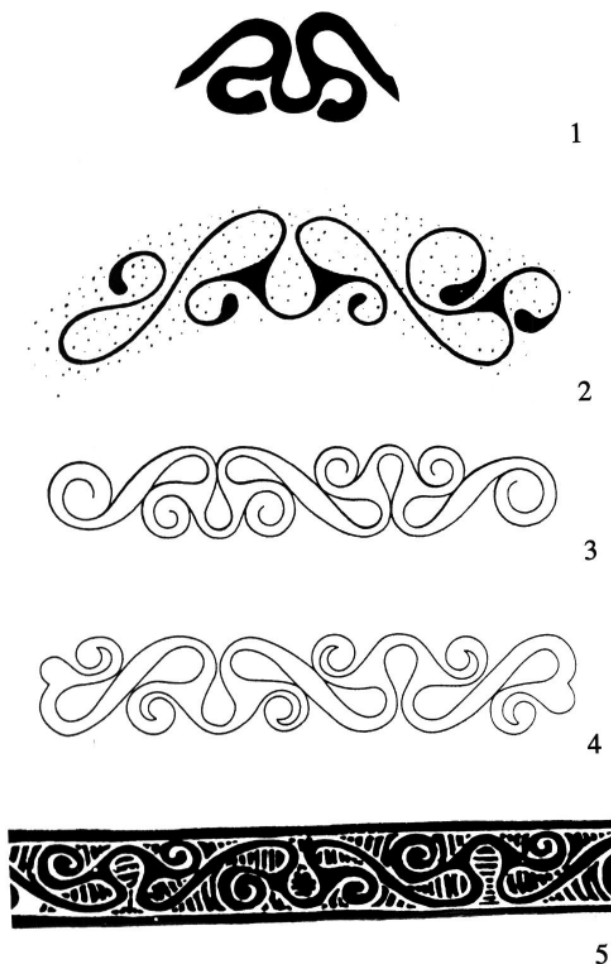


Fig. 6—Tendril type A2a (after Verger 1989): 1 Rickenbach; 2 Münsingen, tomb 48; 3 Bussy-le-Château; 4 Waldalgesheim; 5 Spiez.

executed and cleverly placed that they can be fully appreciated only when the jewellery is passed around to be admired.

Besides these practical and psychological considerations, the reason may also be rooted in a special mentality, a typically Celtic tendency to fill every empty space—a *horror vacui gallicus*.

This peculiar theme can be traced back as far as the Hallstatt period, when one looks at particular types of finds that pay homage, literally *in extenso*, to this mentality. Examples may be, for instance, bronze belt mounts or vessels decorated in the Alb-Hegau style, whose all-over ornamentation represents a high point in prehistoric pottery techniques (Kilian-Dirlmeier 1972; Zürn 1987). Later, during the early La Tène period, it occurred more than once that the smooth bodies of imported Etruscan bronze vessels were touched up by a Celtic hand (Vorlauf 1997, 116–17).

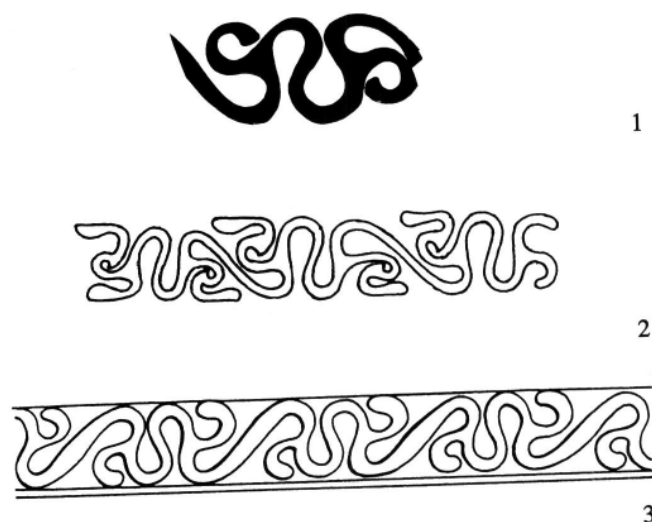


Fig. 7—Tendril type A1 (after Verger 1989): 1 Rickenbach; 2 Waldalgesheim; 3 Moscano di Fabriano.

Some of the attempts to apply a regular pattern to the round areas of the necks, shoulders and bodies of the vessels were more successful than others. While the design of a pattern in the *Premier Style Continu* on the beaked flagon from Besançon is of a high quality, the talent at work on the three flagons from burial mounds I and II at Weiskirchen and from Armsheim was rather more modest. The patterns, executed in quaver-stitch technique, are undemanding and literally at odds with the top-quality craftsmanship seen on examples from the same tombs in Weiskirchen in particular. Furthermore, the fine engravings are only faintly recognisable and one wonders whether they were ever clearly visible. In recent times, the lines on the flagon from mound II in Weiskirchen had to be traced in white paint so that visitors to the museum were able to discern them at all (Baitinger and Pinsker 2002, fig. 336).

The Celtic answer to the Etruscan mass-produced 'bronze beaked flagon' was the creation of spouted flagons such as those found in the tombs of Reinheim and Waldalgesheim, typically decorated with dense all-over patterns in an Early Style (Kimmig 1988, figs 27 and 28). Alternatives to this style were the thoroughly designed bodies of the Glauberg/Dürrnberg-type beaked flagons, also created by Celtic craftsmen, or the inlay work on the flagons from Basse-Yutz (cf. Baitinger and Pinsker 2002, nos 1 and 102).

and fig. 182). In all these Celtic-made examples, the bodies of the vessels were not just left smooth and undecorated, despite the fact that this was actually the case in almost all the Etruscan models.

Functionality generally appears no longer to have been a top priority. The handle of one of the flagons from Glauberg is not even strong enough to take the weight of its contents (Monica Bosinski, in Baitinger and Pinsker 2002, 143). In some cases, the stability of the vessel is actually called into question, which, incidentally, could already be observed in Hallstatt period Alb-Hegau pottery.

The interpretation of the ornament

When examining Celtic art and craftsmanship during the La Tène period, one discovers that the ornamentation of particular categories of metal finds displayed a certain degree of regularity since the mid-fifth century BC: fibulae, torcs, helmets and sword scabbards were decorated following rigid patterns and went through the known and defined styles of art. All the sequences, however, experienced a pronounced change, which occurred approximately during the phase La Tène C1. It was around 200 BC that the propensity to decorate drastically declined; surfaces were increasingly left untreated and smooth. With this, the best years of Early Celtic

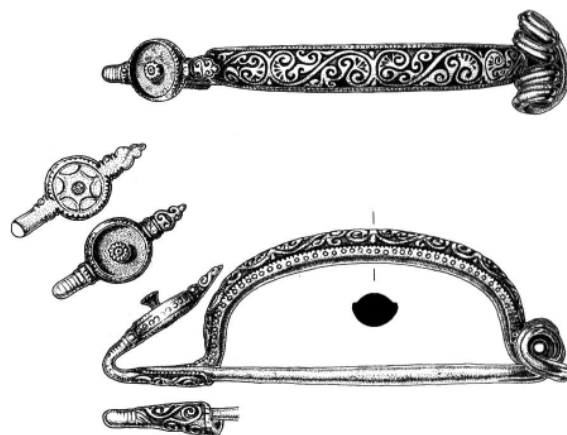


Fig. 8—Early La Tène fibula. Bern 'Schosshalde'. Silver, length 6.4cm.

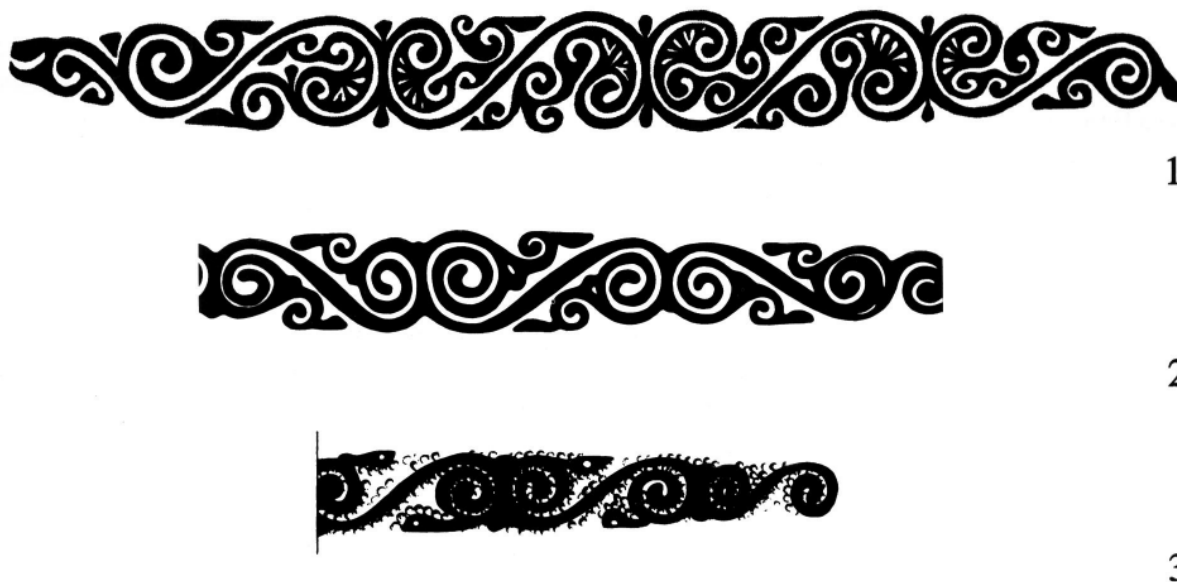


Fig. 9—Related tendrils on Bernese fibulae: 1 Bern 'Schosshalde'; 2 Stettlen-Deisswil, tombs 16–21; 3 Münsingen, tomb 85.

art came to an end. From then on, both functionality and economics, rather than aesthetic considerations, appear to have had much more influence on the shape of the artefacts. The innovative creativity in Celtic art and craftsmanship really only lasted for a short while, from approximately 450 to 200 BC. Historically, this covers a period of 'a dramatic background of war and wandering' (Jacobsthal 1944, 162).

During the third century, the dramatic Celtic migrations throughout the Balkans and Asia Minor came to a halt (Birkhan 1997; Tomaschitz 2002). The events in Upper Italy were even more drastic, with Celtic tribes having to gradually give up their territories and their political autonomy to Rome. After the battles of Telamon (225 BC) and Lake Trasimeno (217 BC), the balance of power had shifted in Rome's favour. The Italic Celts were incorporated into the empire; a considerable number, however, must have broken away to northern and eastern regions.

Significant cultural changes now prevailed north of the Alps; the most visible among these were the *oppida* civilisation, the monetary system and the use of writing (Rieckhoff 2002, 360–3). These cultural changes were shaped by a Hellenism with Roman characteristics and must have brought about a drastic change in mentality throughout Celtic areas on the Continent. It is therefore easy to see how the long-standing traditions in Early Celtic art would have been lost or transformed during such a period of upheaval.

The *oppida* civilisation, however, also offered the chance of a new beginning. The effect that this would have had on the arts has not yet been well researched. A newly emerging creative energy is best seen in the pottery of Clermont-Ferrand (Guichard 2003), where the Celtic genius for elaborate ornamentation was revived once again: Gaul set off on the road towards an autonomous advanced civilisation with a Hellenistic character. What had started with a protracted process of cultural integration into the Mediterranean world since the Hallstatt period was to reach its political conclusion in the mid-first century BC, when Julius Caesar led a military intervention against Gaul.

Acknowledgements

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References

- Baitinger, H. and Pinsker, B. (eds) 2002 *Das Rätsel der Kelten vom Glauberg*. Stuttgart. Theiss.
- Birkhan, H. 1997 *Kelten. Versuch einer Gesamtdarstellung ihrer Kultur*. Wien. Verlag der Österreichischen Akademie der Wissenschaften.
- Bonstetten, G. von 1867 *Second supplément au recueil d'Antiquités Suisses*. Lausanne.
- Bonstetten, G. von 1873 *Catalogue Antiquités Suisses. Handgeschriebener Katalog der Sammlung Bonstetten*. Historisches Museum Bern, unveröffentlicht.
- Frey, O.-H. 1972 *Das keltische Schwert von Moscano di Fabriano. Hamburger Beiträge zur Archäologie I* (2), 173–9.
- Frey, O.-H. 1995 *Das Grab von Waldalgesheim. Eine Stilphase des keltischen Kunsthandwerks*. In H.-E. Joachim, *Waldalgesheim. Das Grab einer keltischen Fürstin*, 159–207. Köln. Rheinland-Verlag.
- Guggisberg, M.A. 2000 *Der Goldschatz von Erstfeld. Ein keltischer Bilderzyklus zwischen Mitteleuropa und der Mittelmeerwelt*. Antiqua 32. Basel. Verlag Schweizerische Gesellschaft für Ur- und Frühgeschichte.
- Guichard, V. 2003 *Un dernier moment de folie créatrice: le répertoire ornemental de la céramique dans le nord-est du Massif central au II^e siècle avant J.-C.* In O. Buchsenschutz, A. Bulard, M.-B. Chardenoux and N. Ginoux (eds), *Décors, images et signes de l'âge du Fer européen. Actes du XXVI^e Colloque de l'Association Française pour l'Etude de l'Âge du Fer, Paris et Saint-Denis, 9–12 mai 2002*, 91–112. Tours. FERACF.
- Hodson, F.R. 1968 *The La Tène cemetery at Münsingen-Rain. Catalogue and relative chronology*. Acta Bernensia 5. Bern. Stämpfli.
- Jacobsthal, P. 1944 *Early Celtic art*. Oxford University Press.
- Jope, E.M. 2000 *Early Celtic art in the British Isles*. Oxford. Clarendon Press.
- Kaenel, G. 1990 *Recherches sur la période de La Tène en Suisse occidentale. Analyse des sépultures*. Cahiers d'Archéologie Romande 50. Lausanne. Bibliothèque historique vaudoise.
- Kilian-Dirlmeier, I. 1972 *Die hallstattzeitlichen Gürtelbleche und Blechgürtel Mitteleuropas*. Prähistorische Bronzefunde XII (1). München. Beck.
- Kimmig, W. 1988 *Das Kleinaspergle*. Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-

- Württemberg 30. Stuttgart. Theiss.
- Kruta, V. 1977 Les fibules laténiennes à décor d'inspiration végétale au IV^e siècle avant notre ère. *Etudes celtiques* 15, 19–46.
- Megaw, J.V.S. 1970 *Art of the European Iron Age. A study of the elusive image*. Bath. Adams and Dart.
- Müller, F. 1998 Die Entwicklung des Waldalgesheimstils in Münsingen-Rain. In F. Müller (ed.), *Münsingen-Rain, ein Markstein der keltischen Archäologie*, 71–83. Schriften des Bernischen Historischen Museums 2. Bern. Bernisches Historisches Museum.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities* (2 vols). Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland. Problems of origin and chronology*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1988 *Hollow two-piece metal rings in La Tène Europe*. Marburger Studien zur Vor- und Frühgeschichte 11. Marburg/Lahn. Hitzeroth Verlag.
- Raftery, B. 1994 *Pagan Celtic Ireland. The enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 2006 *L'Irlande celtique avant l'ère chrétienne*. Paris. Edition Erance.
- Raftery, B. (forthcoming) Norwegian version of *Pagan Celtic Ireland*.
- Reinhard, W. 2004 *Die keltische Fürstin von Reinheim*. Gersheim-Reinheim. Stiftung Europäischer Kulturpark Bliesbruck-Reinheim.
- Rey, T. 1999 Das latènezeitliche Gräberfeld von Stettlen-Deisswil, Kt. Bern. *Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte* 82, 117–48.
- Rieckhoff, S. 2002 Der Untergang der Städte. Der Zusammenbruch des keltischen Wirtschafts- und Gesellschaftssystems. In C. Dobiati, S. Sievers and T. Stöllner (eds), *Dürrnberg und Manching: Wirtschaftsarchäologie im ostkeltischen Raum: Akten des internationalen Kolloquiums in Hallein/Bad Dürrnberg vom 7. bis 11. Oktober 1998*, 359–79. Bonn. Habelt.
- Tomaschitz, K. 2002 *Die Wanderungen der Kelten in der antiken literarischen Überlieferung*. Mitteilungen der Prähistorischen Kommission 47. Wien. Verlag der Österreichischen Akademie der Wissenschaften.
- Verger, S. 1989 La genèse celtique des rinceaux à triscèles. *Jahrbuch des Römisch-Germanischen Zentralmuseums* 34 (1987), 287–339.
- Vorlauf, D. 1997 *Die etruskischen Bronzeschnabelkannen. Eine Untersuchung anhand der technologisch-typologischen Methode*. Internationale Archäologie 11. Rahden/Westph. Espelkamp. Verlag Marie Leidorf.
- Zürn, H. 1987 *Hallstattzeitliche Grabfunde in Württemberg und Hohenzollern*. Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 25. Stuttgart. Konrad Theiss.

Appendix: The group of Bernese fibulae

1. Bern-Schosshalde (Müller 1998, fig. 6).
2. Stettlen-Deisswil, tombs 16–21 (Rey 1999, pl. 5, 34).
3. Münsingen-Rain, tomb 85 (Hodson 1968, pl. 40, 436; Müller 1998, fig. 11, E).
4. Münsingen-Rain, tomb 107 (Hodson 1968, pl. 47, 575; Müller 1998, fig. 11, D).
5. Stettlen-Deisswil, tomb 31 (Rey 1999, pl. 7, 58).
6. Münsingen-Rain, tomb 62 (Hodson 1968, pl. 28, 851; Müller 1998, fig. 11, B).
7. Stettlen-Deisswil, tomb 31 (Rey 1999, pl. 7, 55).
8. Münsingen-Rain, tomb 79 (Hodson 1968, pl. 35, 533; Müller 1998, fig. 11, G).
9. Münsingen-Rain, tomb 136 (Hodson 1968, pl. 59, 318; Müller 1998, fig. 11, H).
10. Stettlen-Deisswil, tombs 5–7 (Rey 1999, pl. 3, 17).
11. Unprovenanced. Musée des Antiquités Nationales, Saint-Germain-en-Laye (Kruta 1977, fig. 8,2).

Also comparable

- Rickenbach, Bernisches Historisches Museum (Inventory number 11730/44677).
- Mannersdorf, tomb 10 (unpublished).

The oldest Italian brooches in Bohemia

Pavel Sankot

Introduction

In examining the conditions that gave rise to the La Tène civilisation in the period preceding the late Iron Age, in Bohemia we are still, in many matters, confronted with a lack of sources. Nevertheless, based on critical access to rare finds such as the unique brooch of Italian origin from Bohosudov (Venclová 2002), we are able to bring the potential wealth of knowledge from these finds into the Europe-wide context of the cultural development of the Hallstatt period (Ettel 2007). Even though speculation about the relationship of such objects to the social aspects of settlement at the time is made more difficult by the lack of find circumstances, the information that has been obtained may at least be used to better specify points of contact and spatial relations. This is true for the exotic bowed brooches found in Bohemia, which have been forgotten or inaccessible and which can be chronologically placed at the end of the late Bronze Age (Fig. 1).

Circumstances and description of finds

In his synthesis published in 1928, *Die Vorgeschichte Böhmens und Mährens*, Schráníl included an illegible image of a fragment of a bronze brooch from Jaroměř (Fig. 1.1), in the area of north-east Bohemia, 'als Einzelfund' (Schráníl 1928, 196, Taf. XLI, 16). This find, marked as specimen 992A without any additional information, was originally part of the collection of Stěpán Berger. Following identification by V. Vokolek, it was entered into the archaeological collection of the National Museum under inventory number H1-226825. This is a fragment of a bronze brooch with a symmetrically arched bow with a circular profile 4mm in diameter, winding on one side into a double coil, while the other side of the bow is worked into the catch-plate. On the bow one can also see traces of ornamental grooving. The current length of the brooch is 35mm, the height 23mm.

Analogous forms are found in brooches known from the Golasecca culture. P. von Eles Masi (1986, 33, Tav.

13/251–252) classifies these forms into groups of brooches with 'plain' or 'simple' bows (*fibule ad arco semplice*). While classic forms are roughly dated to the tenth century BC, findings in other areas, for example Slovenia, may be dated to the second half of the eighth century BC. In Slovenia, Urleb (1973, 512, Tav. 2/4) presents the site in question, grave 38 from the Križna gora u Lože area, as typical for phase Ib of the local cemetery. This chronological placement is not even refuted by the ornamental grooving of the Jaroměř brooch (*Tannenzweigmuster*), which is common both on Italian finds, presented by von Eles Masi (1986, 29–30, Tav. 12/227–232) in older artefacts from the tenth–eleventh century BC, and on slightly later finds from regions north of the Alps (Betzler 1974, 153, Taf. 73/1009).

The find of the bronze brooch fragment, purportedly originating in Stradonice, Beroun region (Fig. 1.2), was identified by the author while sorting through the previously unpublished collection of Křivoklát Castle. The collection originally belonged to the Fürstenberg family and became the property of the Czechoslovak state following the Second World War without any documentation. This item is registered under inventory number 2585. This is a fragment of a bronze brooch that has a horizontally compact-shaped bow and more or less oblique shorter sides. The bow has a gabled profile in the upper part of the section and a rounded profile in the lower part of the section; advanced corrosion of the surface hides indications of slanting incised ornamentation. On the back the bow merges into a bow wind, and on the front side it leads onto a broadened catch-plate. The present length is 40mm and the height 18mm.

According to Maute (1994, 433), the area in which bowed brooches most commonly occur is the Italian–Aegean region, as best documented by the collection of finds presented by von Eles Masi (1986, 14ff). Chronologically they can generally be placed in phases Ha A2 and Ha B1 (Maute 1994, 433, Abb. 74/13). The lowered bow of the Stradonice brooch belongs to the typologically younger forms of bowed brooches, comparable to type II of Chieco Bianchi *et al.* (1976, 8, Tav. 1/7–13), i.e. *fibule ad arco ingrossato e ribassato*, dated to the Bologna IIB phase,

and in the Este culture chronology to the Este II antico and Este II medio phases. In absolute dating terms, von Eles Masi (1986, 62–5, Tav. 35/524–531, 36/549) places analogous brooch forms—*fibule ad arco ribassato a profilo rettangolare*—from the Este area in the eighth to the first half of the seventh century BC. In absolute chronological classification by Gabrovec (1973, Tav. 2) and Staré (1973, T. 68), brooches of these forms in the Slovenian area are dated to between 770 and 740 BC. Parzinger places these brooches in his horizon I, including phase Innerkrain = Notranjska IIb, parallel to the St. Lucia I1 phase, and corresponding to Reinecke's Ha B3 phase chronology. Parzinger (1988, 22, 124, Taf. 26/1) considers a period of 750(740)–710(700) BC. An identical dating to the Ha B3 phase of the late Urnfield period is also given by Maute (1994, 433) for finds of brooches of this shape from the western Alps region. Similarly, analogous forms of the above-mentioned bowed brooches are dated in the Japodian–Liburnian region to phase IB at the Križna gora burial site (Urleb 1974, 28ff, Abb. 11).

In our region, these would clearly be the oldest shapes of brooches from south of the Alps, which, according to Říhový (1993, 77–81), also reach Moravia as the outer limit of the area in which they are found.

For completeness we also present the brooch listed under inventory number H1-111425, without location, from the collection of the National Museum (Fig. 1.4). The brooch has a total length of 64mm and, with its broadened arched bow of circular cross-section, decorated with fine grooves and single-sided double-spiralled coiling and a low and broad fastening catch, it is directly comparable with the shape of a bronze brooch from Verona, Porta San Giorgio (von Eles Masi 1986, 35, Tav. 14/2265). The artefact from the National Museum, however, lacks information about the site where it was found, and thus documentation of its provenance in Bohemia. Nevertheless, the possible occurrence of this shape of finds of Italian origin, dated to the Ha B2 phase or to the ninth century BC (von Eles Masi 1986, 35) in absolute chronology, in regions north of the Alps is documented by the finds published by Novotná (2001, 62, Taf. 16/135–139) from Slovakia as well as by finds from Bavaria (Betzler 1974, 152, Taf. 73/1008).

Assessment

The collection of finds of brooches from central Europe is,

from the late Bronze Age to the beginning of the early Iron Age, influenced by the existence of two large groups of attire 'Trachtprovinzen', which Těřžan (1994, 447–50) designates as being Carpathian with characteristic 'Drahtschmuck-Handwerk' products, and Adriatic–Ionian, where the older forms of looped brooches (*Violinbogenfibeln*) are replaced by bowed brooches (*Bogenfibeln*). In the Ha B3 phase, the shapes of southern Alps brooches start appearing in areas north of the Alps, and in certain areas of western Europe series of hundreds of finds have been documented (Duval *et al.* 1974), permitting consideration not only of their significance in the social context of the attire of the period but also of other functions, for example their symbolic and religious significance (Adam 1992). The occurrence of bowed brooches, typologically placed in the Ha B3 phase, is presently unique in Bohemia, and the absence of find circumstances precludes further assessment along the lines above. Nevertheless, at the very least, one cannot disregard their temporal and geographical significance. In the case of the Jaroměř find, this is an area where, for the Urnfield bronze period, at least three major burial-grounds, including settlement components, are present within the area of the present-day town alone. In the adjacent area of the Lusatian culture a series of mass finds of gold artefacts are registered, and there is evidence of hillforts and other manifestations of a rising class of nobility, including exceptionally furnished burials (Vokolek 1993, 47 sq.). In the following period of the first phase of the Silesian–Platenice culture of the ninth–eighth century BC, commercial contact with northern Italian centres enabled an influx of luxury goods, thus far documented by bronze vessels but also including cultural and religious elements (*ibid.*, 60 sq.). New assessment of recent and archival data on the Jaroměř finds has documented their ties to the strategically placed trade route running from central Bohemia through north-east Bohemia across the Metuje River into Silesia (Vokolek and Sankot 2001), and not only for the Hallstatt and early La Tène periods but also for other protohistorical and historical periods.

In our opinion, a similar model may also be considered for the Stradonice bowed brooch. Clarification of the relationships of the dominant position of this hillfort to the numerous components in the immediate surroundings, particularly burial components, is the subject of future research. The recently made documentation of pre-*oppidum* settlements indicates intensive activities here in the Bronze Age, Hallstatt and even early La Tène periods, as well as at

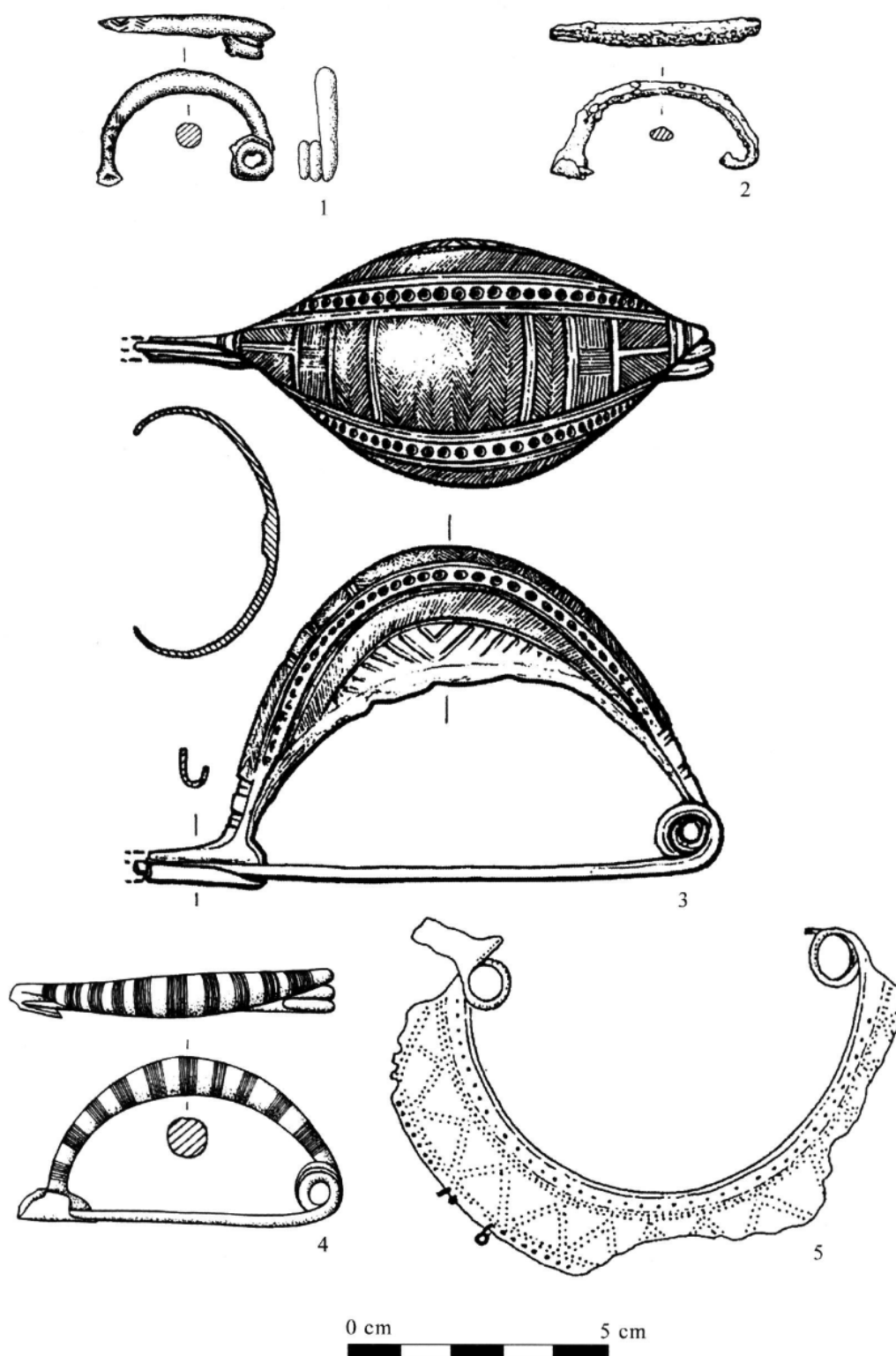


Fig. 1—(1) Brooch from Jaroměř, collection of National Museum, Prague, No. H1-226825, unknown; (2) brooch from Stradonice, collection of Křivoklát Castle, No. 2585, unknown; (3) brooch from Bohosudov (after Venclová 2002, fig. 1/3); (4) brooch from unknown site, collection of National Museum, Prague, No. H1-111425, unknown; (5) brooch from Předměřice (after Vokolek 1999, pl. 94/9).

other *oppidum* sites in Bohemia (Závist, Hrazany, České Lhotice—Čtverák *et al.* 2003, 58 sq.).

Arguments in favour of the commercially strategic importance of the aforementioned sites at the end of the late Bronze Age, when the links between Bohemia and the regions of the later Golasecca and Este civilisations begin to be sustainable, are, in our opinion, supported by the similar finds of exotic brooch forms imported to Bohemia during the Ha C phase—the *navicella*-type brooch from Bohosudov (Fig. 1.3) in an area with deposits of material resources (tin, copper and iron: Venclová 2002, 273) and the 'Halbmondfibel' from Předměřice nad Labem (Fig. 1.5), acquired from the excavation of a burial-ground containing the remains of the tombs of the contemporary social élite (Vokolek 1993, 69). A similar model of commercially strategic importance is also considered for the subsequent period of the Ha D1 phase (Chytráček and Metlička 2004, 32–3). The operating of the system of trade routes between regions north and south of the Alps had a major impact on the rise and culmination also of prehistoric civilisations of the La Tène period, including those of present-day Bohemia (Sankot 2003; 2006a; 2006b).

References

- Adam, A.M. 1992 Signification et fonction des fibules dans le cadre des relations transalpines du VIII^e au V^e siècle avant notre ère. In L. Aigner-Foresti, *Akten des Symposions Etrusker nördlich von Etrurien, Wien-Schloss Neuwaldegg* 1989, 389–409. Wien. Österreichische Akademie der Wissenschaften.
- Betzler, P. 1974 *Die Fibeln in Süddeutschland, Österreich und der Schweiz I*. Prähistorische Bronzefunde XIV/3. München. C.H. Beck'sche Verlagsbuchhandlung.
- Chieco Bianchi, A.M., Calzavara, L., De Min, M. and Tombolani, M. 1976 *Proposta per una tipologia delle fibule di Este*. Studi etrusci. Firenze. Olschki.
- Chytráček, M. and Metlička, M. 2004 *Die Höhensiedlungen der Hallstatt- und Latènezeit in Westböhmen*. Památky archeologické, Supplementum 16. Praha.
- Čtverák, V., Lutovský, M., Slabina, M. and Smejtek, L. 2003 *Encyklopedie hradišť v Čechách*. Praha. Libri.
- Duval, A., Eluère, C. and Mohen, J.-P. 1974 Les fibules antérieures au VI^e siècle avant notre ère, trouvées en France. *Gallia* 32, 1–61.
- Ettel, P. 2007 Diffusione e ricezione della moda italiana delle fibule nelle regioni transalpine. In M. Guštin, P. Ettel and M. Buora (eds), *Piceni ed Europa, Atti del convegno. Piran 2007. Archeologia di frontiera* 6, 135–45. Udine. Società Friulana di Archeologia—Onlus.
- Gabrovec, S. 1973 Začetek halštatskega obdobja v Slovenii—Der Beginn der Hallstattzeit in Slowenien. *Arheološki Vestnik* XXIV, 338–85.
- Maute, M. 1994 Fibel und Tracht B. Jüngere Bronzezeit im südlichen Mitteleuropa. Fibel und Fibeltracht. In H. Beck *et al.* (eds), *Reallexikon der Germanischen Altertumskunde* 8, 429–34. Berlin/New York. Beck/Walter de Gruyter.
- Novotná, M. 2001 *Die Fibeln in der Slowakei*. Prähistorische Bronzefunde XIV/11. Stuttgart. Steiner.
- Parzinger, H. 1988 *Chronologie der Späthallstatt- und Frühlatènezeit*. Acta humaniora 4. Weinheim. VCH.
- Říhovský, J. 1993 *Die Fibeln in Mähren*. Prähistorische Bronzefunde XIV/9. Stuttgart. Steiner.
- Sankot, P. 2003 *Les épées du début de La Tène*. Fontes archeologici Pragenses 28. Pragae. Museum Nationale Pragae.
- Sankot, P. 2006a Le passage du Hallstatt final à La Tène ancienne en Bohême. In D. Vitali (ed.), *Celtes et Gaulois, l'archéologie face à l'histoire. La Préhistoire des Celtes. Actes de la table ronde de Bologne, 28–29 mai 2005*, 143–56. Collection Bibracte 12/2. Glux-en-Glenne. Centre archéologique européen.
- Sankot, P. 2006b Fund eines metallenen Zirkels im Kontext der Stufe LT A in Tuchoměřice, Bezirk Prag-West. *Pravěk* NŘ 16, 253–77.
- Schránil, J. 1928 *Die Vorgeschichte Böhmens und Mährens*. Leipzig. Walter de Gruyter.
- Staré, V. 1973 *Praggodovina Šmarjete*. Katalogi in monografije 10. Ljubljana. Narodni muzej.
- Těžan, B. 1994 Die Bronzezeit und ältere Eisenzeit im östlichen Mitteleuropa, Beziehungen zum Mittelmeergebiet. Fibel und Fibeltracht. In H. Beck (ed.), *Reallexikon der Germanischen Altertumskunde*, 444–56. Berlin/New York. Beck/Walter de Gruyter.
- Urleb, M. 1973 Halštatska nekropola na Křižni gori pri Ložu—Die hallstattzeitliche Nekropole auf der Křižna gora bei Lož. *Arheološki Vestnik* XXIV, 507–20.
- Urleb, M. 1974 *Křižna Gora pri Ložu—Hallstattzeitliches Gräberfeld Křižna Gora*. Ljubljana. Narodni muzej.
- Venclová, N. 2002 Bronzy z Bohosudova—Bronze objects from Bohosudov, NW-Bohemia. In P. Čech and Z. Smrž

- (eds), *Sborník Drahomíru Kouckému*, 271–8. Most. Ústav archeologické památkové péče severozápadních Čech.
- Vokolek, V. 1993 *Počátky osídlení východních Čech*. Hradec Králové. Muzeum východních Čech.
- Vokolek, V. 1999 *Východočeská halštatská pohřebiště—Hallstatt period cemeteries in East Bohemia*. Pardubice. Východočeské muzeum.
- Vokolek, V. and Sankot, P. 2001 Ein neuer Blick auf den frühlatènezeitlichen Fund in Jaroměř—Nový pohled na časně laténský nález z Jaroměř. *Archeologické rozhledy* **LIII**, 236–55.
- von Eles Masi, P. 1986 *Le fibule dell'Italia settentrionale*. Prähistorische Bronzefunde XIV/5. München. C.H. Beck'sche Verlagsbuchhandlung.

The chronology of La Tène art in Britain

Ian M. Stead

La Tène art in Britain is usually classified on the basis of Jacobsthal's 1944 work on early Celtic art on the Continent, in which he defined Early, Waldalgesheim, Sword and Plastic styles (Megaw and Megaw 2005, 11). The scheme was in fact published the previous year in an essay on La Tène chronology by de Navarro, quoting an unpublished paper by Jacobsthal, in which the styles were numbered and a distinctively British style appended (de Navarro 1943: I = Early Style; II = Waldalgesheim Style; III = Sword and Plastic Styles; IV = 'an insular phenomenon'; the scheme was subsequently completed with V = Mirror Style). This work is now 65 years old and those years have seen many more discoveries, some of them in significant contexts. It is worth reviewing the situation today by examining those pieces that can be related to dated artefacts or established typologies. The body of evidence is limited to decorated brooches and scabbards, which can be dated on the basis of their existing typologies, and to other decorated artefacts associated with brooches, scabbards, dated pottery and coins. Typology is an imprecise approach to chronology, but for much of the British Iron Age it is the best tool available.

Brooch numbers in the following text refer to Hull and Hawkes 1987; scabbard numbers refer to Stead 2006; and ECABI numbers refer to plates in Jope 2000. This paper is concerned with the centuries before the birth of Christ.

Dated associations

La Tène III

Most dated contexts of decorated artefacts are La Tène III. There are thirteen decorated mirrors associated with artefacts, most of which can be dated within decades: one with a brooch and scabbard; two with brooches and pottery; four with brooches only; three with pottery only; two with glass and/or metal vessels; and one stratified in a Roman context. There is no need to review the dating evidence because others have considered it in detail, with opinions differing only slightly (Sealey 2006; Joy 2008). Most are in contexts dated between 50 BC and AD 50, four of them

extending even later; two, Chilham Castle and Pegsdon, could be as early as the first quarter of the first century BC; and Bryher may have been even earlier, perhaps up to 50 years earlier. The associated brooch fragment could have been from a Nauheim-related brooch or a much later Nauheim-derivative: given the typology of the associated group C scabbard, the former seems more likely. Unfortunately, although Bryher has a decorated mirror and a decorated scabbard, minimal conservation treatment has not revealed the designs.

Mirrors are incised (or engraved, or chased) with a variety of shapes with curved sides, usually three curved sides, especially peltate or fan-shaped (one convex and two concave sides) and the distinctive trumpet void (one convex, one concave and one S-shaped side, Fig. 1a and b). Other motifs include keeled roundels that can give the appearance of bird heads (Fig. 1c). Some of the shapes are filled with hatching, grouped as regular chequer-board or in irregular arrangements.

Eight decorated torques are associated with gold coins that belong to the early part of La Tène III, all of them found at Snettisham. Seven were in hoard F with nine coins and one, the Great Torque, hoard E, with a single coin. There are two issues of coins in hoard F: Gallo-Belgic A, two staters (one of which is halved) and two quarter-staters; and Gallo-Belgic C, five staters. The quarter-stater from hoard E is contemporary and hoards E and F are both likely to have been deposited in the middle of the first half of the first century BC (Stead 1991b, 455, quoting A. M. Burnett; Haselgrove 1993, especially p. 41, note 1).

The decoration of the torques in hoards E and F may be classified in two groups. The Great Torque (ECABI 108–9) has terminals decorated with panels including trumpet voids and keeled roundels filled with regular grouped hatching and separated by raised lobes. The motifs resemble those on the mirrors, and three of the torques in hoard F have similar decoration. Three of the other torques in hoard F have very different decoration based on symmetrical arrangements of simplified palmettes enhanced with abundant stippling (Fig. 1e–g, l and m). A fourth terminal is too crushed for the design to be fully deciphered but details relate it to the

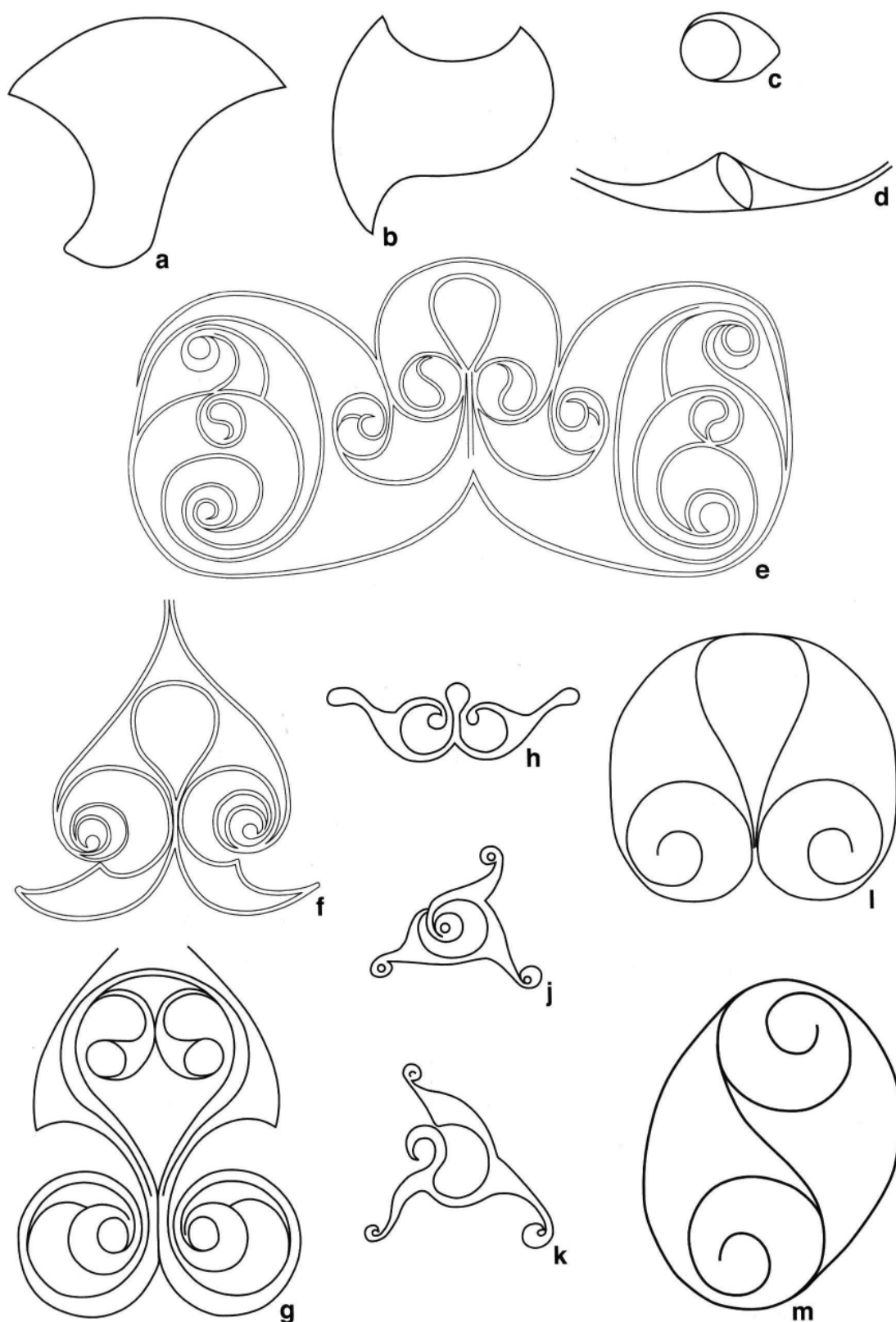


Fig. 1—Patterns from Snettisham torques. First group (a–d): a and b, trumpet voids; c, keeled roundel; d, cusp with cross-vesica. Second group (e–m): e–g, l and m, palmette designs; h–k, filler motifs within f.

second group. Snettisham hoard L, too, includes the two very different styles of decoration, having one torque, the Grotesque Torque, with the simplified palmette motif (Fig. 4; ECABI 113b) and five with trumpet voids and/or raised lobes (Fig. 3; Fig. 1a–d). The trumpet void is a distinctively British design that may have developed from lobe and cusp motifs (Stead 1991a, fig. 99a–e). There is no hint of it in the palmette designs at Snettisham and no other suggestion of continuity between these very different styles.

Two groups of southern British scabbards belong to La Tène III, groups C and D, and both include decorated pieces. Trumpet voids, keeled roundels and related features are found on several group C scabbards (85, 86, 88–90 and 92). Decoration that is incised (either on metal or wax) usually features grouped hatching. Group D scabbards are different. Isleham (101; ECABI 206) has the most elaborate decoration, including trumpet voids and keeled roundels, but they are arranged symmetrically and have stippled, not hatched, backgrounds. The symmetrical designs on 102 (Bardney, ECABI 210f and g) and 106 (St Mawgan, ECABI 211i) are also stippled, and 103 (Congham) has a symmetrical arrangement of keeled roundels, and cusps filled with diminishing cusps. These scabbards must have been contemporary with the decorated mirrors but for some reason their manufacturers chose to avoid hatching.

North of the Humber there is only one scabbard with decoration closely related to that on the mirrors. The Bugthorpe scabbard (176; ECABI 202, 203h) has an overall wave design featuring trumpet voids and keeled roundels with grouped hatched infillings. Its chape-end has similar hatching as a background to raised lobes like those on some Snettisham torques. The Grimthorpe scabbard (177; ECABI 203n) has minor elements of the same style of decoration.

La Tène II

For the phases before La Tène III no decorated artefacts are found with dated pottery or coins, but there are two contexts in which they are associated with brooches. The brooches, from graves at Newnham Croft and Deal, are similar to one another but they do not fit neatly into the typology of La Tène brooches. The Newnham Croft brooch (4283; ECABI 42g) has an open catch-plate; its foot is linked to the bow with a vestigial collar derived from a La Tène II brooch; and it is cast in one piece apart from the hinged pin. The Deal brooch (Stead 1995, 86), with a solid catch-plate and its pin

hinged on a tab set below the head, was found in the same grave as a scabbard of group B, the British equivalent of a La Tène II scabbard. Atypical cast brooches occur elsewhere, and these two have been grouped with other British brooches as type 2B 'decorative forms peculiar to Britain' (Hull and Hawkes 1987, 143). Two brooches from Wetwang Slack with similar features, including coral decoration (7894 and 7902, ECABI 45j), are from the early stages in the horizontal stratification of that cemetery (i.e. La Tène I or II; Dent 1982, 441–4; 1995).

The Newnham Croft brooch was found with a decorated bracelet and the Deal brooch with decorated scabbard, shield-boss, crown and suspension-ring—the largest collection of decorated artefacts ever found in a La Tène grave in Britain. The designs and methods of execution of these decorated artefacts vary considerably. Two of the Deal artefacts have motifs similar to those on the mirrors. The sheet-metal mouth-plate of the scabbard has repoussé lobes, cross-vesicas and keeled roundels bordering trumpet voids, and there are raised lobes on the cast chape-end. The shield-boss features a random arrangement of openwork trumpet voids. The other Deal artefacts are different. The brooch and suspension-ring are cast and decorated with isolated motifs—triangular shapes with curled or keeled projections in pear-shaped frames. The crown is sheet metal, its band incised with a wave design, lobes meeting cusps, and infillings of graded circles. The Newnham Croft bracelet is cast and decorated with bands of linked triangular shapes and tendrils.

Brooches provide only limited fields for decoration but there are fragments on some La Tène II specimens. The Sawdon brooch (3798; ECABI 47j), with circular foot disc attached to the bow by a collar, has a wave fragment on its long low bow, with central cross-vesica and spiralled terminals. A Wetwang Slack brooch (7869; ECABI 38j) with shorter, higher bow but similar foot construction has triskeles with spiralled terminals. An involuted brooch from Danes Graves (2243; ECABI 44e) has high-relief decoration: lobes on the underside of the bow; a reversed S-swig on the top of the bow, with a face-like motif at one end and a snail-shell at the other; and a yin–yang device on the foot. Short involuted brooches from Beckley (2244; ECABI 46a–c) and Woodeaton, Islip (3070; ECABI 46d–h), have symmetrical tendril designs.

In southern Britain group B scabbards are datable to La Tène II, and three of them are decorated. The Deal scabbard (66, ECABI 205o) has been mentioned above and its

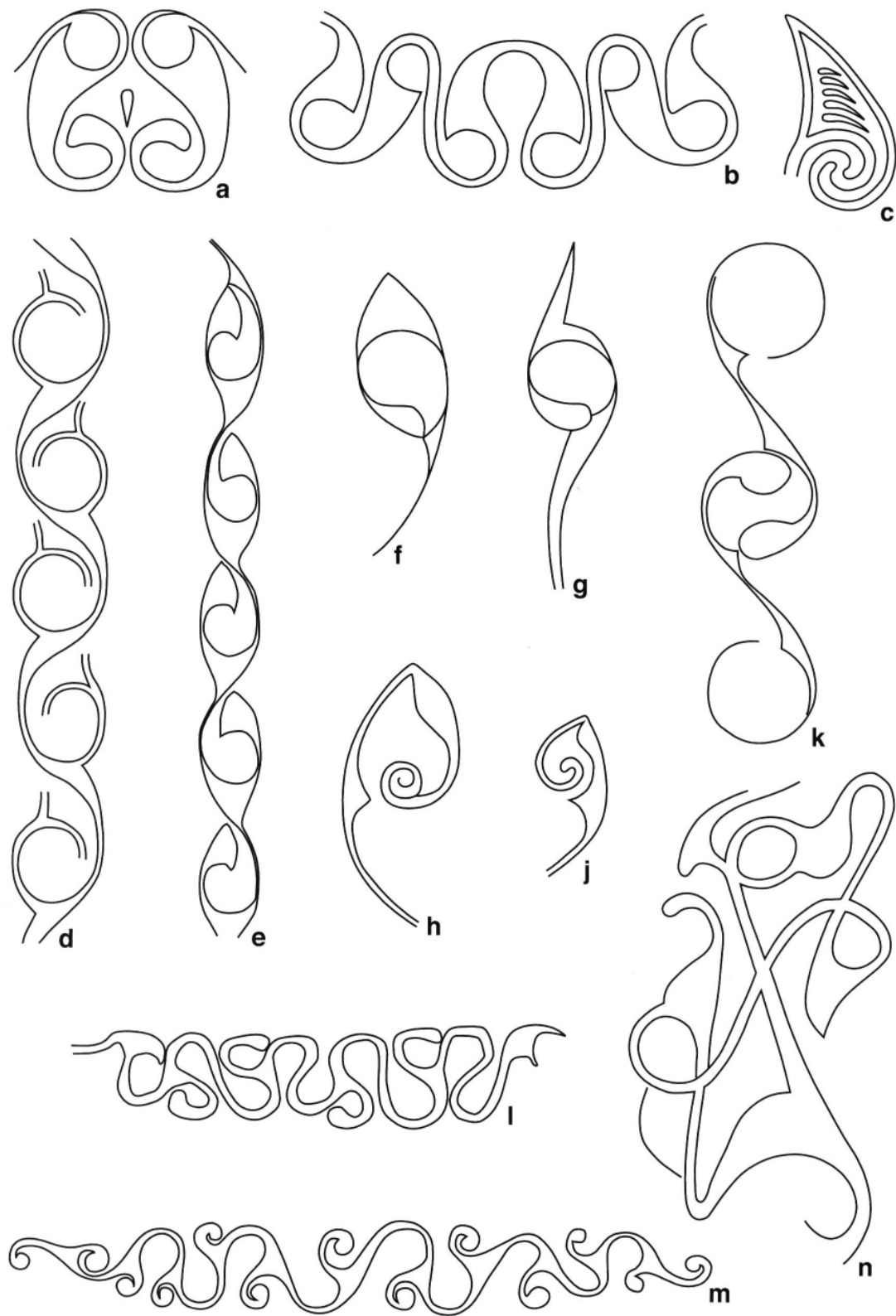


Fig. 2—a-c, Palmettes: a and b, Fiskerton; c, Thames scabbard; d and e, wave patterns (simplified): d, Wetwang; e, Kirkburn; f-k, lobe and cusps: f, Sutton; g and k, Deal; h and j, Wetwang; i and m, Waldalgesheim scrolls: i, Ratcliffe; m, Newnham Croft; n, crossed tendrils, Ratcliffe.

decoration related to that on the mirrors. The Little Wittenham chape (67, ECABI 216a) has some of the same features: triangular shapes similar to trumpet voids and grouped hatching. It also has a pair of cusp and lobe motifs very like two of those on the group C Henley scabbard (85, ECABI 209). The third decorated group B scabbard (53, Fovant, ECABI 2041) is different, with a mouth panel decorated with paired strings of cusps with spiralling tendrils and infillings of cross-vesicas and continuous hatching. The overall layout is influenced by dragon pairs.

La Tène I

No La Tène I grave-groups or hoards in Britain provide datable associations for decorated artefacts, but there are decorated brooches and scabbards that can be assigned to this early horizon. On brooches the most ambitious designs are two strings of scrolls (perhaps derived from palmettes) with dotted outlines at Hunsbury (2928; ECABI 34c–f) and S-shapes on brooches from Box (2912; ECABI 34i–k) and Maiden Castle (2089; ECABI 391—Jope's illustration has been reversed). The Hunsbury and Box brooches, with high bows and large spring coils, are 'Marzabotto' brooches (Hull and Hawkes 1987, type 1A), a distinctive type that occurs in La Tène Ia contexts at Münsingen (Hodson 1968, 35).

In southern Britain seven decorated scabbards have La Tène I features (group A: 2, 8, 9, 11, 31, 34 and 35). Two are dragon-pairs (2, Hammersmith, ECABI 52e, and 8, Battersea) with stippled backgrounds, the Hammersmith scabbard having a suspension-loop ornamented with a dotted loop and triple dot; two have palmette elements, especially half-palmettes (9, River Thames, and 11, Hammersmith, ECABI 209f), and another has a design based in part on half-palmettes (34, Shepperton); one has simple geometric ornament (31, Orton Meadows, ECABI 52g), crosses and arcading; and one has a string of triangular shapes with tendrils, with similar motifs flanking a devolved palmette (35, Standlake, ECABI 48–9).

North of the Humber three scabbards with La Tène I features are decorated (group E: 172–4). Two of them have continuous wave designs, one (172, Kirkburn) with infillings of trumpet voids within continuous hatching. The third scabbard (174, Wetwang) has a wave-like design separated into three reversed-S motifs with spiralled terminals and varied fillings.

Stylistic groupings

In this section the designs that occur in dated contexts are grouped and, where appropriate, the grouping is extended to include other examples.

(i) Dragon-pairs that occur on two British La Tène I scabbards (group A, 2 and 8) belong to a Continental type originally classified by de Navarro (1959) and subsequently supplemented and discussed in numerous papers. There can be no doubt that the two British dragon-pairs are closely linked to the Continent, one being a characteristic example of de Navarro's type II, the other a variant of his type I (Frey 1995, 163, dating them to La Tène Ic).

(ii) Some of the decoration on the Standlake scabbard (35; ECABI 48–9) and the Newnham Croft bracelet belongs to a distinctive Continental pattern known as the Waldalgesheim scroll. Such scrolls were described by Jacobsthal (1944, 92) as 'triangular whirligigs in the context of tendrils . . . the underlying rhythm is a wave tendril: each triangle flows into the next at two corners, and ends dead with a scroll at the third'. The motif was classified by Verger (1987), who distinguished four versions: A1, A2a, A2b and B, only two of which (A1 and B) occur in Britain. Type B is a string of whirligigs alternating above and below a simple wave, their free scrolls curling alternately clockwise and anti-clockwise. This is the version within the chape of the Standlake scabbard and in two bands on the Newnham Croft bracelet (Fig. 2m; Stead 1995, 90, fig. 34, nos 4 and 7).

Waldalgesheim scrolls occur on other British artefacts. Verger's type A1 wave is more complex than type B: the whirligigs are paired, one with its free scroll curling anti-clockwise and the other clockwise (Verger 1987, fig. 1). It occurs three times on the Ratcliffe shield-boss: an abbreviated version with three whirligigs; a reversed type A1 with four whirligigs (Fig. 2l); and another reversed type A1 with only two whirligigs (Watkin *et al.* 1996, fig. 3b–d). There is a blundered version of the type A1 design on the handle of a Fiskerton file (Stead 1985a, fig. 19e; Field and Parker Pearson 2003, 70, fig. 4.16) and an element of type A1 in the type B version on the Standlake scabbard. Verger (1987, 288 and 294) considered that the type A1 scroll was characteristic of the period La Tène B1b to B2 (= end of La Tène Ib and Ic) and that the type B scroll started at the end of La Tène B1 and continued throughout La Tène B2 and C1 (= end of La Tène Ib to IIa).



Fig. 3—Terminal of a Snettisham torque, hoard L, no. 13.

(iii) Other British wave designs are not closely matched on the Continent. On the Kirkburn scabbard (172) the basic pattern is a string of triangular shapes, each flowing into the next at two corners (Fig. 2e). The description is almost the same as that used by Jacobsthal for the Waldalgesheim scroll, but at Kirkburn the triangles are not whirligigs because the free end flows counter to the other two corners, terminating in a keeled shape. One of the Wetwang scabbards (173) has a similar arrangement, though with swollen stem from which scrolls bifurcate and turn in to the wave, as at Kirkburn (Fig. 2d). The other Wetwang scabbard (174), also with a La Tène I chape, has a fragmented wave design: a reversed S with pointed ends and tendrils that each curl towards a cusp on the stem (Fig. 2j). The Deal crown has elements of the same design (Fig. 2g; Stead 1995, fig. 36), and the scabbard from that grave employs the same overall design in repoussé but incorporating trumpet voids (Fig. 2k; *ibid.*, fig. 38). Patterns on two other La Tène II artefacts are related: the Fovant scabbard (53; ECABI 204l) with cusps featuring cross-vesicas and spiral terminals; and the Sawdon brooch (3798; ECABI 47j), whose wave has a central cusp with cross-vesica and spiral terminals.

Two other wave designs are related to those on the Kirkburn and Wetwang scabbards and the Deal crown, both of them fragmented waves. The Wetwang bean-can, from a

grave adjoining those with the scabbards, is decorated with linked S-shapes whose terminals curve towards cusps on the stem (Fig. 2h; Stead and Hughes 1997, pl. 89, 2–4; ECABI 52f and 89c), and the horse-bits from the same grave have relief S-shapes but without cusps (Stead 1991a, fig. 99f). The Sutton scabbard-plate (33; ECABI 52a–d and 53a) has a wave, a divided wave and linked S-shapes, some with lobe or semicircular terminals directed towards cusps on the stems (Fig. 2f). Infillings of graded circles link the Sutton designs to those on the Deal crown.

These La Tène I and II designs are ‘dominated by running-wave compositions and by sequences of S figures and spirals’. Barry Raftery’s words are apt—but he was describing Irish art, not British (Raftery 1994, 476). Whilst there is an obvious overall similarity between these British pieces and the Irish scabbards, there are marked differences too. In detail the Irish art is more varied, especially in the filler motifs, and they do not employ the terminal-touching-cusp device. The scabbards are much shorter than their British counterparts and the chapes are completely different—but they are La Tène I chapes. The wave tendril, ‘the basic form of all classical ornament’ (Jacobsthal 1944, 92, pl. 265, no. 107), is frequently employed on La Tène art on the Continent. Raftery illustrated a simple example from La Tène itself, whose arrangement closely matches that on the Kirkburn scabbard (Raftery 1994, 490, fig. 5, 3). But whilst the basic motifs of the British and Irish art have Continental origins, perhaps common Continental origins (*ibid.*, 489), neither branch can be confused with each other nor with Continental art.

(iv) The other important motif represented on La Tène I scabbards is the palmette, especially the half-palmette. There are half-palmettes in two panels on a Thames scabbard (Fig. 2c) and a series of them in a zigzag arrangement on a Hammersmith scabbard (11; ECABI 209f). The palmette-derived motif in the centre of the top panel of the Thames scabbard (9a) and the lines of dots around it are reminiscent of the motif on the La Tène Ia Hunsbury brooch (2928; ECABI 34c–f).

The Wisbech sheath (32; ECABI 28a–b and 29a) and Fiskerton sword handle (52) lack key diagnostic features but are probably La Tène I and certainly decorated with palmette motifs. The Wisbech sheath has had overall decoration with linked facing-S and reversed-S ribbons springing from the foot-scrolls of crude bulbous palmettes. Very similar palmettes are linked by similar ribbons to the foot-scrolls of

more recognisable palmettes on the Cerrig-y-drudion 'helmet' (ECABI 29b–c and 30) in a design whose Breton links were first observed by Reginald Smith (1926, 279). The finials on the Fiskerton sword handle have three different designs of palmettes, half-palmettes and split palmettes incorporated in waves (Fig. 2a and b). One of them can be read as S-shapes superimposed on a running dog, and all of them have lines of dots recalling those on the mouth panel of the Thames scabbard (9a) and on the suspension-loop of one from Hammersmith (2). The three Fiskerton designs (and the Hammersmith suspension-loop) also feature triple dots, a device that Barry Raftery chased all over Europe (Raftery 1984, 102–4). A fourth design on the Fiskerton sword handle (52b) is a diagonally balanced openwork pattern like some at Deal, Newnham Croft, Lisnacrogher and Toome (Stead 1995, 90).

Variations on the half-palmette theme dominate the decoration of the Witham scabbard (36; ECABI 50h–k and 51), whose overall layout is closely related to the La Tène I Shepperton scabbard (34), which in turn provides a link both in motifs and execution (narrow bands of high rounded repoussé together with engraved ornament) with the Wandsworth round shield-boss (ECABI 82–9). Another device on the Witham scabbard, a tendril that crosses itself in a figure-of-eight fashion, is matched on the Wandsworth round boss and also occurs on the Ratcliffe shield-boss (Fig. 2n; Stead 1985b, fig. 25a and b; Watkin *et al.* 1996, fig. 5). This feature has often been compared with Hungarian Sword Style designs: a scabbard from Tapolca-Szentkút (Szabó and Petres 1992, no. 72) has an example along with a Waldalgesheim scroll, a combination matched on the Ratcliffe shield-boss.

(v) Palmette designs are not confined to La Tène I contexts, as demonstrated by an important group of torques buried at Snettisham in La Tène III, probably in the middle of the first half of the first century BC. The Snettisham palmettes are simplified versions, reduced to a single central leaf with a volute, or foot-scroll, on each side (Fig. 1e–g and l). Six Snettisham torques have related designs, five of them featuring the simplified palmette. Four of the designs are on tubular torques, the decoration either in low-relief repoussé or incised. The other two are on terminals of multi-strand torques (one merely the terminal, no strands survive) and their decoration is in repoussé but in high relief. The decoration on all six torques has been executed on sheet metal, in contrast to the cast decoration on some other

torques from Snettisham. Two of the tubular torques include triangular shapes with curling tendrils (Fig. 1h–k; Stead 1991b, pl. iii), some bifurcating tendrils, motifs that can be matched on the Newnham Croft bracelet. The loose terminal from a multi-strand torque also features bifurcating terminals but in high relief (Fig. 1e). The decoration on the terminals of the other multi-strand torque, the Grotesque Torque (Fig. 4; ECABI 113b), consists entirely of simplified palmettes and two linked half-palmettes (Fig. 1l and m). High-relief decoration fully covers the surface of the terminals; there is 'no clear border-line between the decoration and what it decorates . . . all is growth and flux' (Jacobsthal 1944, 97). Thus Jacobsthal described his Plastic Style, and there can be no doubt that he would have regarded the Grotesque Torque as a major example. Along with the other palmette and tendril designs, it ought to belong to the third century BC and would have been quite old when buried with more recent pieces in the first century BC. But this argument is not supported by the condition of the artefacts. In hoard F the four torques in the 'earlier' style and the three in the 'later' style are all damaged fragments. In hoard L the one 'earlier' piece, the Grotesque Torque, is complete but repaired in antiquity; of the five 'later' pieces two are complete, two complete but damaged and one incomplete and damaged. The association of several examples of La Tène art in closed contexts, some with coins, ought to be an ideal starting-point for elucidating the chronology of British La Tène art. But stylistic considerations suggest that the torques are far from being contemporary. The Grotesque Torque and others with palmette designs are very unlikely to have been made as late as the first century BC.

Features of some of these palmette-decorated Snettisham torques may provide a context for the Battersea shield. Not only the simplified palmette motif but the stippling and dotted outlines suggest close links (compare the 'eyebrows' on Fig. 4 and Stead 1991b, fig. 12, with Stead 1985a, pl. viiiib, for the dotted outlines). In turn, the Battersea shield has links with the Brentford 'horn-cap' (whose tendrils recall those on the Newnham Croft bracelet) and the Witham shield (Stead 1985a, 34, figs 12e and 13).

(vi) Apart from the palmette-decorated pieces in the Snettisham hoards, most decorated artefacts in La Tène III contexts are in a different style. Incised designs on mirrors are found in repoussé or cast on other artefacts where the distinctive shapes are divided and defined by lobes,



Fig. 4—Terminal of a Snettisham torque, the Grotesque Torque, hoard L, no. 19.

sometimes lobes on lobes. These motifs had very long lives and are not limited to La Tène III contexts. The trumpet void occurs on two artefacts in the La Tène II grave at Deal, once associated with raised lobes, and it features on the La Tène I scabbard at Kirkburn. This distinctively British motif may have developed from lobe and cusp designs (Stead 1991a, fig. 99a–e). There is no hint of it in the palmette patterns at Snettisham and no other suggestion of continuity between these very different styles.

One decorated Snettisham torque stands apart from the groups of decoration defined above. On the muff of one of the tubular torques in hoard A is a circle and lobe pattern in

high relief (ECABI 112b and c). The device occurs three times and perhaps it should be related to the simple symmetrical decoration on some group D scabbards. But that torque also has true filigree ornament, otherwise unknown in Iron Age Britain, and a case can be made for regarding it as a Continental import (Hautenaue 1999).

Discussion

The earliest examples of La Tène art in Britain that can be dated are the slight designs on Marzabotto brooches, La Tène

Ia, late in the fifth century BC or early in the fourth century. Palmettes and dotted lines might link the Hunsbury brooch with a Thames scabbard (9) and the Fiskerton sword handle, but the dotted line on a Hammersmith suspension-loop is associated with a La Tène Ic dragon-pair. Arcading also has a dotted outline on an Orton Meadows scabbard with La Tène I chape and perhaps the earliest appearance of a central suspension-loop. Half-palmettes on the Thames scabbard (9) and another La Tène I scabbard from Hammersmith (11) are used as the basis for elaborate ornament on the Witham scabbard and the La Tène I Shepperton scabbard. S-motifs occur on Marzabotto brooches and rise from foot-scrolls flanking palmettes on the Wisbech sheath, which is related to the Cerrig-y-drudion 'helmet'.

The dragon-pairs and Waldalgesheim scrolls show that there was contact with the Continent in La Tène Ic, the end of the fourth century and first half of the third century BC, with the type B scroll perhaps extending that contact into the second half of the third century. The Newnham Croft scrolls, including type B, are La Tène II. The cross-over devices on the Witham scabbard and Ratcliffe shield-boss suggest influence from the Hungarian Sword Style in the second half of the third century BC. Jacobsthal's Plastic Style is represented by the Grotesque Torque at Snettisham as well as in details on La Tène II brooches from Danes Graves and Newnham Croft (Jacobsthal 1945, 123).

Wave designs have a long history and the date of the contact that gave rise to the distinctive Yorkshire and Irish wave patterns is unknown. But the insular waves occur on scabbards with La Tène I chapes, and two of the sites, Kirkburn and Lisnacrogher, have also produced distinctive riveted hollow rings identical to Continental examples. Barry Raftery has studied them throughout Europe and considers that the type was virtually obsolete by the end of La Tène I: he makes a strong case for regarding the British and Irish pieces as imports (Raftery 1988; 1994, 486). There are links between the decoration on one of these Yorkshire scabbards (Wetwang, 174), the bean-can from another Wetwang grave and the La Tène II (group B) scabbard from Deal. They share a distinctive motif, a tendril curving towards a cusp on the stem, a motif that is not found in Continental (or Irish) art. And the Kirkburn scabbard displays another distinctively British motif, the trumpet void, which also occurs at Deal and has a long history extending down to the Roman conquest.

The third century BC saw Continental influence as well as the development of a variety of distinctively British art

styles. Most of the great artworks that lack independent dating are likely to belong here or in the first half of the second century. Thereafter variety gave way to the relatively uniform art style represented on the mirrors and Snettisham's Great Torque.

The decade 1984–93 produced a series of important finds that considerably increased the corpus of La Tène art in Britain and clarified a mid-phase in its development (Wetwang, Kirkburn, Deal, Snettisham and Ratcliffe). Numbered styles as previously defined (de Navarro 1943; Stead 1985a; 1985b) are still valid for illustrating the development of La Tène art, indeed style III has been boosted with the Ratcliffe shield-boss and the Snettisham Grotesque Torque. But with styles II, III, IV and V overlapping in the third century BC the system is of little use for chronology. Although there has been some progress in refining the chronology of La Tène art in Britain there is still a great deal of uncertainty.

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References

- de Navarro, J.M. 1943 A note on the chronology of the La Tène period. In R. E. M. Wheeler, *Maiden Castle, Dorset*, 388–94. Oxford. Society of Antiquaries of London.
- de Navarro, J.M. 1959 Zu einigen Schwertscheiden aus La Tène. *Bericht der Römisch-Germanischen Kommission* 40, 79–119.
- Dent, J.S. 1982 Cemeteries and settlement patterns of the Iron Age on the Yorkshire Wolds. *Proceedings of the Prehistoric Society* 48, 437–57.
- Dent, J.S. 1995 A distinctive form of inlaid brooch from Iron Age Britain. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age*, 41–8. Oxford. Oxbow.
- Field, N. and Parker Pearson, M. 2003 *Fiskerton: an Iron Age timber causeway with Iron Age and Roman votive offerings*. Oxford. Oxbow.

- Frey, O.-H. 1995 Some comments on swords with dragon-pairs. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age*, 163–76. Oxford. Oxbow.
- Haselgrove, C. 1993 The development of British Iron-Age coinage. *The Numismatic Chronicle* 153, 31–64.
- Hautenaue, H. 1999 Les torques tubulaires de Snettisham: importation continentale ou production insulaire? *Lunula. Archaeologia protohistorica* 7, 89–100.
- Hodson, F.R. 1968 *The La Tène cemetery at Münsingen-Rain*. Acta Bernensia 5. Bern. Stämpfli.
- Hull, M.R. and Hawkes, C.F.C. 1987 *Corpus of ancient brooches in Britain: pre-Roman bow brooches*. British Archaeological Reports, British Series 168. Oxford.
- Jacobsthal, P. 1944 *Early Celtic art*. Oxford. Clarendon Press.
- Jacobsthal, P. 1945 Part II. In C. F. C. Hawkes and P. Jacobsthal, 'A Celtic bird-brooch from Red Hill, near Long Eaton, Notts.', 119–24. *Antiquaries Journal* 25, 117–24.
- Jope, E.M. 2000 *Early Celtic art in the British Isles*. Oxford. Clarendon Press.
- Joy, J.P. 2008 Reflections on the Iron Age: biographies of mirrors. Unpublished Ph.D thesis, University of Southampton.
- Megaw, R. and Megaw, V. 2005 *Early Celtic art in Britain and Ireland*. Princes Risborough. Shire Publications.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1988 *Hollow two-piece metal rings in La Tène Europe*. Marburger Studien zur Vor- und Frühgeschichte 11. Marburg/Lahn. Hitzeroth.
- Raftery, B. 1994 Reflections on the Irish scabbard style. In C. Dobiati (ed.), *Festschrift für Otto-Herman Frey zum 65. Geburtstag*, 475–92. Marburger Studien zur Vor- und Frühgeschichte 16. Marburg. Hitzeroth.
- Sealey, P.R. 2006 Two new decorated Iron Age mirror finds from Essex. In P. J. Ottaway (ed.), *A victory celebration: papers on the archaeology of Colchester and Late Iron Age–Roman Britain presented to Philip Crummy*, 11–18. Colchester. Friends of Colchester Archaeological Trust.
- Smith, R.A. 1926 Two early British bronze bowls. *Antiquaries Journal* 6, 276–83.
- Stead, I.M. 1985a *The Battersea shield*. London. British Museum Press.
- Stead, I.M. 1985b *Celtic art in Britain before the Roman conquest*. London. British Museum Press.
- Stead, I.M. 1991a *Iron Age cemeteries in East Yorkshire*. London. English Heritage.
- Stead, I.M. 1991b The Snettisham treasure: excavations in 1990. *Antiquity* 65, 447–65.
- Stead, I.M. 1995 The metalwork. In K. Parfitt, *Iron Age burials from Mill Hill, Deal*, 58–111. London. British Museum Press.
- Stead, I.M. 2006 *British Iron Age swords and scabbards*. London. British Museum Press.
- Stead, I.M. and Hughes, K. 1997 *Early Celtic designs*. London. British Museum Press.
- Szabó, M. and Petres, E.F. 1992 *Decorated weapons of the La Tène Iron Age in the Carpathian Basin*. Inventaria Praehistorica Hungariae 5. Budapest. Hungarian National Museum.
- Verger, S. 1987 La genèse celtique des rinceaux à triscèles. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz* 34, 287–339.
- Watkin, J., Stead, I., Hook, D. and Palmer, S. 1996 A decorated shield-boss from the River Trent, near Ratcliffe-on-Soar. *Antiquaries Journal* 76, 17–30.

Ateliers transalpini e Senoni delle Marche: i problemi dello 'Stile Vegetale continuo'

Daniele Vitali

1. Nel 1978, V. Kruta rilanciava le proprie conclusioni—costruite in precedenti lavori—sulle radici celto-italiche del rinnovamento stilistico dell'arte celtica del IV sec. a.C. (Kruta 1978).

Affermando che tra il Primo Stile e lo Stile Vegetale continuo non vi era alcuna filiazione ma piuttosto una rottura importante, V. Kruta cercava i prototipi dei nuovi motivi del IV secolo nel repertorio greco-etrusco italiano, che sarebbe stato fatto proprio ed elaborato dai Senoni delle Marche (Kruta 1974).

Qualche anno dopo (1987) un'estesa analisi di S. Verger tentava di rimettere in causa 'il postulato iniziale di una rottura radicale tra i due stili' e riportava numerosi esempi che mostravano come 'il nuovo stile poteva essere il prodotto delle trasformazioni di composizioni del V secolo lateniano'. Il brillante lavoro di Verger ribaltava la prospettiva di Kruta, facendo vedere che 'dans la genèse de l'art celtique du IV^e siècle l'on [pouvait] mettre au jour un héritage celtique' (Verger 1987, 287ss.).

Sono passati più di vent'anni dalla formulazione di queste posizioni antitetiche e possiamo dire che, nonostante il tempo trascorso e i numerosi contributi che hanno arricchito il dibattito, le due piste di ricerca raccolgono consensi più o meno consapevoli, ma rimangono inconciliabili e resistono ognuna nella propria posizione, anche se gli argomenti a favore della seconda appaiono più consistenti e fertili.

In un recente lavoro Th. Lejars ha riassunto i termini di questo dibattito e precisato le posizioni degli studiosi sulle questioni del rapporto tra i foderi di spada e le diverse tipologie e iconografie di ornamentazione (Lejars 2003).

L'ipotesi della 'filiazione etrusco-italica', dello Stile Vegetale continuo, divenuta col tempo un pilastro intoccabile, è stata rilanciata in occasione del convegno internazionale di Rimini del 2004 dove è stato annunciato che un nuovo bilancio critico, pronto per la pubblicazione, avrebbe definitivamente mostrato il ruolo avuto dai Senoni dell'Adriatico nel rinnovamento dell'arte celtica del IV secolo (Kruta 2006, 277).

Alle critiche che l'illustre collega ha formulato in tale occasione nei confronti di chi aveva espresso perplessità sulle

'prove' di un *foyer* senonico, ho risposto da altra sede, tentando di mostrare nuovamente che l'argomento considerato 'forte e determinante' del legame tra i vasi dipinti a motivi curvilinei della Champagne e la ceramica a figure rosse dei vasaisti greci ed etruschi in realtà era debole e soprattutto non stava in piedi (Vitali 2008, 910–11): tra i vasi dipinti della Champagne e i pretesi modelli mediterranei, non vi era alcun rapporto né tecnologico, né formale, come si poteva desumere da una lettura senza pregiudizi **non** dell'abstract **ma** del testo integrale dell'articolo di N. Corradini (Corradini 1991).

Nella stessa occasione sottolineavo la necessità che si facesse più attenzione allo studio delle correlazioni cronologiche tra i materiali decorati con questo stile artistico, con tutti i limiti o le conseguenze, che questo tema avrebbe implicato (Vitali 2008, 912–13; Lejars 2003, 14–35).

2.1. I foderi lateniani decorati della tomba 22 di Santa Paolina di Filottrano e della tomba 'aristocratica' di Moscano di Fabriano più il *torquis* d'oro della tomba femminile n. 2 di S. Paolina di Filottrano costituiscono i pilastri sui quali si sono basate le argomentazioni dei sostenitori del '*foyer* celto-italico'. La datazione di questi oggetti in un arco di tempo che oscilla tra la prima metà/il secondo quarto/la metà del IV sec. a.C. ha fatto di ciascuno di questi manufatti una 'inevitabile' ovvero 'implicita' creazione locale, sintesi del substrato lateniano di Primo Stile portato dai Senoni e della cultura figurativa greco-etrusco-italica bene conosciuta anche in area marchigiana. 'L'elemento principale della decorazione... è di evidente origine greco-etrusca... i due foderi cisalpini... costituiscono il punto di partenza di una serie... anticipano innovazioni che si diffonderanno molto più tardi nella produzione transalpina' (Kruta 1992, 398–9).

In questa linea di pensiero, che dà per evidente ed acquisito ciò che invece si dovrebbe dimostrare, si sarebbe potuto lasciare aperta l'ipotesi che questi 'capolavori' dell'arte lateniana potessero essere delle importazioni giunte in area senonica dal mondo transalpino con/o '*metà de tina chrònon*'/le prime migrazioni degli inizi del IV sec. a.C.; invece si è scelta una strada che deterministicamente faceva dei Senoni gli elaboratori di un'arte che avrebbe avuto

grande successo e che 'si sarebbe irradiata ai quattro capi del mondo celtico transalpino'.

Due nuovi elementi che sono entrati da poco nel circuito della comunità scientifica concorrono a mettere in crisi questo postulato e a ridare peso all'argomento di un *foyer* lateniano transalpino creatore delle prime versioni di 'Stile Vegetale continuo' meglio definito 'Primo Stile continuo' per sottolinearne la continuità con le esperienze lateniane dell'*Early Style*.

- (1) lo studio tecnologico dei foderi della tomba 22 di Santa Paolina di Filottrano e della tomba di Moscano di Fabriano;
- (2) la datazione dei corredi delle tombe contenenti i due foderi decorati e il *torquis* d'oro.

2.1.1. La datazione del fodero decorato della t. 22 di S. Paolina di Filottrano (Fig. 1.3) fissata da alcuni autori al terzo quarto del IV sec. a.C. (Frey 1971) e da V. Kruta al secondo quarto dello stesso secolo (Kruta 2000, 621) è stata riesaminata da A. Rapin che l'ha rialzata al V sec. a.C. Le caratteristiche tecnologiche di questo fodero infatti appaiono tipiche degli esemplari transalpini con 'bouterolle à frette' di V sec. a.C. (Rapin 2008, 243-4).

A sostegno di questo 'invecchiamento' sostanziale di quasi mezzo secolo A. Rapin aggiunge il confronto con la decorazione su lamina bronzea del fodero di V sec. a.C. proveniente dalla necropoli 'senonica' di Cortrat (Loiret) ('présentant de nombreuses affinités thématiques, graphiques et techniques') (Rapin 2008, 245, 248-9).

Anche nella rigorosa analisi tipologica di queste armi illustrata al XXVI colloquio dell'AFEAF A. Rapin aveva motivato l'inconciliabilità tra l'effettiva cronologia dei supporti marchigiani e le date tradizionali assegnate al 'nuovo stile' col quale essi furono decorati dagli armaioli transalpini. A tale testo si rimanda e ci basterà citare in questa sede la sua sintetica ma efficace conclusione: 'Ce qui subsiste des indices morphologiques et technologiques présents sur le fourreau de Filottrano plaide en faveur d'une fabrication ancienne relevant des traditions militaires et artisanales de LT A, soit du Ve s. av. J.-C. . . . A ma connaissance aucune arme du IVe s. ou de La Tène B ne rassemble autant d'indices techniques homogènes et convergents relevant de la phase LTA. Le défunt pourrait ainsi appartenir à cette première génération d'immigrants d'origine transalpine. Son arme aurait été conçue avant la migration des Sénon, à plus de 1000 km au nord de son lieu d'inhumation' (Rapin 2003, 52).

Anche il fodero di Moscano di Fabriano (Fig. 1.1) con la decorazione riportata unicamente sulla lamina frontale di bronzo, a sua volta incollata alla sottostante lamina di ferro (Vitali 1996, 592-5, fig. 4; Rapin 2008, 244-5, fig. 3B), viene 'invecchiato' e riferito al primo terzo del IV sec. a.C.

A. Rapin ha constatato che la stampiglia a doppio triscele utilizzata sulla lamina bronzea di Moscano di Fabriano ha la stessa forma e dimensioni di quella utilizzata per decorare i foderi di Epiais-Rhus (Val d'Oise) (Fig. 1.2) e di Saint-Germainmont (Ardennes). Il fodero di Moscano non può dunque che essere uscito dal medesimo *atelier* (anche se è impossibile stabilire quale tra queste armi sia stata realizzata prima delle altre due) e questa conclusione dà grandi argomentazioni all'ipotesi 'd'une intense créativité artisanale transalpine du début du IVe s.' (Rapin 2008, 245). La giustapposizione del motivo a doppio triscele è stata talmente perfetta 'qui a donné l'illusion parfaite d'une frise continue, au point de tromper ses observateurs antérieurs' (Rapin 2003, 52).

In parole povere, il fodero di Moscano di Fabriano sarebbe stato prodotto in un *atelier* transalpino, lo stesso che ha realizzato quelli di Epiais-Rhus e di Saint-Germainmont e—continuando il ragionamento—sarebbe giunto in Italia dalla Champagne assieme alle schiere di guerrieri senonici che tra il primo e il secondo quarto del IV sec. a.C. si stabilirono nelle Marche.

L'importanza di uno o più *foyers* di area transalpina (uno dei quali certamente nella Champagne) per quanto concerne la nascita dello Stile Vegetale, definito piuttosto 'Premier Style continu', è vista nel successo che tale iconografia ha avuto anche su altre classi di materiali (principalmente oggetti di pueri) scoperte in regioni non direttamente coinvolte dalle migrazioni verso la Cisalpina (Rapin 2003, 57).

L'allargamento dell'indagine iconografica anche all'area celtica insulare ha permesso poi di rialzare 'inaspettatamente' al V sec. a.C. la cronologia di quanto resta di un fodero da Standlake, nell'alta valle del Tamigi e di ipotizzare—per la presenza di alcune specificità insulari—una fabbricazione locale di quest'arma decorata con il linguaggio di un Primo Stile continuo analogo a quello del continente (Rapin 2003, 56).

Anche un altro fodero, scoperto in un altro ambiente culturale, nella necropoli celto-ligure di Ameglia (tomba 25 A), viene datato agli inizi del IV sec. per le affinità tecnologiche coi foderi della Champagne del V sec. a.C. (Rapin 2008, 242). Questo fodero presenta una decorazione

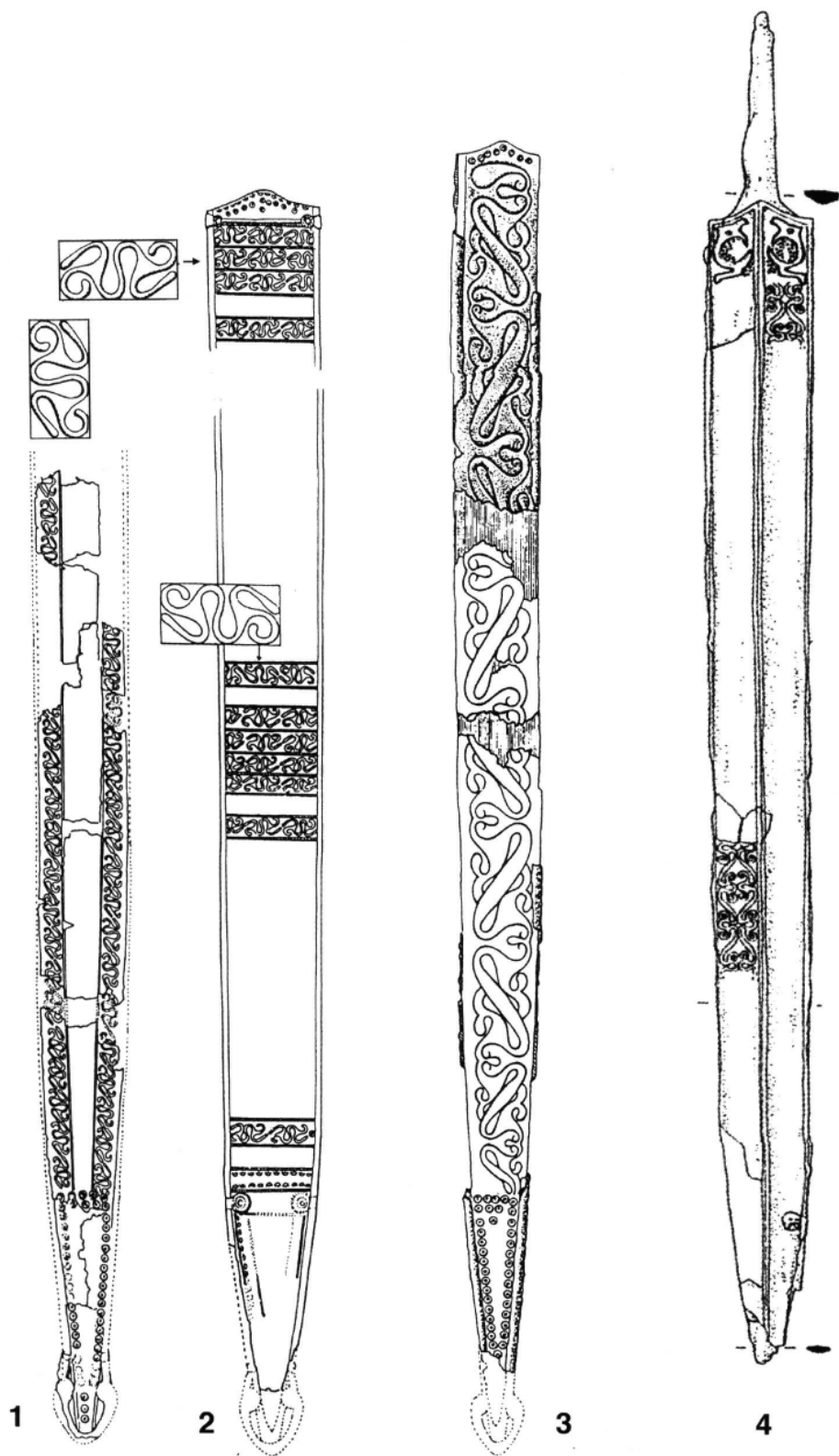


Fig. 1—(1) Fodero di Moscano di Fabriano; (2) fodero di Epiais-Rhus (Val d'Oise); (3) fodero di Santa Paolina di Filottrano t. 22; (4) fodero di Casalecchio di Reno 'zona A' t. 53 (disegni non in scala).

a doppio triscele—del tipo A2a di Verger (Verger 1987, 288)—incisa nel medaglione frontale probabilmente dallo stesso atelier che fabbricò quest'arma. Per ragioni cronologiche (stanno per iniziare o sono appena iniziate le massicce migrazioni degli inizi del IV secolo) l'*atelier* non può che essere localizzato in area transalpina.

2.1.2. Le datazioni dei due foderi marchigiani proposte sulla base di valutazioni tecno-morfologiche non trovano immediati riscontri nella datazione dei due corredi funerari dei quali le due armi facevano parte.

Nel caso di Moscano di Fabriano si tratta di un corredo straordinario nel quale è visibile il peso culturale del milieu etrusco-umbro-piceno, in primo luogo per la presenza di numerosi utensili per la preparazione del banchetto e per la cottura delle carni (coltellacci, spiedi, alari, calderoni) e di vasellame metallico di produzione locale e di importazione dall'Etruria e dalla Campania. La presenza di vasellame figurato di produzione attica, in particolare di due crateri a campana del Pittore di Filottrano, costituisce un elemento fondamentale per proporre delle datazioni 'al quarto di secolo'. Il periodo di attività di questo Pittore e della sua Bottega diventa un *terminus post quem* per la tomba: non si tratta più dell'ultimo quarto del IV sec. a.C. come sostenuto in passato, ma del terzo quarto del IV sec. a.C., 'gli anni tra il 350 e il 340 a.C.' (Landolfi 2000, 85).

Questa datazione definitivamente condivisa, dopo alcune oscillazioni formulate in precedenza—forse per conciliare gli scarti cronologici con l'ipotetica datazione dell'inizio dello Stile Vegetale continuo (Landolfi 1991: datazione della deposizione 'entro il secondo quarto del IV sec. a.C.')—si ricollega con la prima proposta di O.H. Frey (Frey 1971).

Per quanto concerne il fodero della tomba 22 di S. Paolina di Filottrano, nessuna datazione può derivarci dal corredo cui esso apparteneva in quanto non sappiamo nulla di quella che fu la sua reale consistenza. Il corredo non è menzionato nell'inventario generale della necropoli di S. Paolina e perciò E. Baumgärtel concluse giustamente che 'list of contents consequently doubtful'. Del corredo, che probabilmente era più cospicuo, vengono citati solamente due anelli di ferro e una cuspidi di lancia di ferro (Baumgärtel 1937, 266).

La datazione del ricco corredo della tomba femminile n. XX di S. Paolina di Filottrano col *torquis* d'oro a tamponi decorato con motivi vegetali plastici lateniani, è stata fissata intorno alla metà del IV sec. a.C. e, per la presenza di due

crateri a campana del Pittore di Filottrano, viene ulteriormente precisata a dopo il 350–340 a.C.

Questo significa dunque che i due corredi, quello di Moscano col fodero decorato e quello di Filottrano col *torquis* d'oro, si datano o nel terzo quarto del IV sec. a.C. (fra il 350 e il 325 a.C.) o dopo/poco dopo questo periodo.

Come abbiamo visto, il fodero della tomba 22 di Filottrano non ha nessun supporto cronologico da parte di altri materiali e ha vissuto finora di datazioni 'autoreferenziate'.

Vista l'ambiguità che in questi anni ha regnato sulle datazioni di queste due tombe (per tutti Kruta 2000, 620–1; 741, con datazioni al secondo quarto del IV sec. a.C.) accettare il terzo quarto del IV sec. a.C. come data di seppellimento del guerriero di Moscano e della signora di Filottrano è un importante punto fermo. E' probabile che anche la tomba 22 di Filottrano debba essere collocata nello stesso arco di tempo.

2.2. Detto questo, si tratta di capire in quale momento furono fabbricati i due foderi decorati ed il *torquis* d'oro depositi nei rispettivi corredi: sicuramente prima della metà/terzo quarto del IV sec. a.C. ma quando? Questo dato non può essere ricostruito se non ipoteticamente, ma l'analisi dei caratteri tecno-morfologici operata da A. Rabin, si rivela basilare. Da questo punto di vista, i legami che esistono tra i due foderi marchigiani e gli esemplari citati di area senonica transalpina collocano i due pezzi—come abbiamo visto—agli inizi del IV sec. a.C. (Rabin 2003; 2008).

E' evidente che la distanza temporale di circa mezzo secolo tra la realizzazione delle due armi decorate e il momento di seppellimento dei due guerrieri cui erano associate, pone un problema. Purtroppo ci mancano le analisi antropologiche relative ai due guerrieri inumati: se immaginiamo che questi abbiano fatto parte delle schiere di guerrieri entrati in Italia con le migrazioni che portarono i Senoni a Roma (390/387 a.C.), i due guerrieri sarebbero morti a un'età di 60 anni e oltre: varcate le Alpi a 20 anni, con armi transalpine più o meno fresche di *atelier*, vissero in Italia due volte tanto, per morire poco dopo la metà del secolo. Teoricamente possibile, ma il dato dell'antropologia che avrebbe potuto confermare questa ipotesi non c'è.

Vista la particolarità di queste due eccezionali armi decorate si potrebbe pensare anche che esse abbiano rappresentato due oggetti di prestigio, preziosi per il loro aspetto e per la loro storia, e perciò oggetti di scambio o di dono: questa spiegazione avrebbe il merito di allentare il

rapporto 'al limite' con l'età di morte dei due guerrieri.

L'altra 'ipotesi' che fa di questi foderi delle produzioni senoniche di area italiana prima della metà/terzo quarto del IV sec. a.C.—e più precisamente del secondo quarto del secolo (Kruta 2000, 621)—non può essere accettata perchè non può spiegare le ragioni degli stretti e dimostrati legami tecno-morfologici tra le armi transalpine ('antecedenti') e i due foderi decorati delle Marche che, se fossero stati realizzati fra il 375 e il 350 a.C., lo sarebbero stati 'con tecnologie e sistemi decorativi ormai antichi e desueti' (Rapin 2008).

3. Dopo gli importanti contributi di A. Rapin, l'ipotesi che presso i Senoni si debba localizzare un centro di elaborazione stilistica inquadrabile nel cosiddetto Stile Vegetale continuo è difficile da sostenere.

Il fatto che altre classi di oggetti lateniani, decorati nello stesso stile e diffusi in area transalpina siano più antichi di circa mezzo secolo rispetto ai supporti scoperti in Italia (foderi, *torquis*) non fa che demolire tale ipotesi (Verger 1987).

Anche un altro argomento ridimensiona il ruolo avuto dal mondo senonico nella creazione ed elaborazione di un'arte lateniana nelle/dalle/proprie sedi marchigiane e cioè il numero veramente esiguo di opere lateniane conosciute in quest'area: ai due foderi e al *torquis* già ricordati si aggiungono infatti pochissimi elementi di costume: quattro fibule lateniane tra Moscano e la necropoli di Montefortino d'Arcevia (tombe III, XXI, XXV) (Brizio 1901, 55, Tav. VII, 3; 71, Tav. VII, 9; 80, Tav. VII, 8), un braccialetto di vetro giallognolo (tomba XXX) (Brizio 1901, 82, Tav. VII, 20) e le cesoie di ferro (tomba XXXV) sempre da Montefortino (Brizio 1901, 91, Tav. XI, 7) che mostrano bene come il processo di acculturazione anche di queste comunità celtiche immigrate sia stato repentino, massiccio e 'senza troppi rimpianti' per le specificità delle proprie radici transalpine.

Si è ripetuto più volte che se non avessimo le fonti storico-letterarie che parlano di Senoni nelle Marche, difficilmente avremmo potuto riconoscere queste popolazioni nei corredi nei quali i materiali e le modalità di espressione dei contenuti (il banchetto, il simposio, la cura del corpo . . .) sono di tipo greco-etrusco; mentre i marcatori culturali dei Celti—a parte le spade lateniane—sono praticamente assenti. In questo contesto dunque anche la rarità di prodotti 'd'arte' lateniana gioca a favore dell'ipotesi di acquisizione di tali manufatti da fuori.

A questi elementi si può aggiungere anche un'ultima

considerazione: le scoperte archeologiche degli ultimi venti anni, hanno fatto uscire l'area dei Senoni dallo splendido isolamento nel quale le poche opere d'arte 'da manuale' di tipo La Tène le avevano lasciate per tanto tempo. Tale isolamento poteva effettivamente creare l'idea di una peculiarità dell'artigianato artistico dei Senoni in rapporto alle altre popolazioni celtiche d'Italia. Nel frattempo però numerose 'opere d'arte' di tipo lateniano hanno visto la luce; qui elencherò solamente quelle utili per il nostro tema:

- il fodero decorato della tomba 126 di Monte Tamburino a Monte Biele (Fig. 2.3) (Rapin et al. 1992, fig. 4-6);
- il fodero di una delle tombe di Varenna (Como) (Fig. 2.4) che, dopo il restauro, ha restituito una decorazione del tutto analoga a quella della tomba 126 di Monte Biele (Fig. 2.3) (Rapi 2007);
- il fodero, sempre decorato, della tomba 53 di Casalecchio Zona 'A' (Fig. 1.4) (Ortalli 2008, 305, fig. 10);
- il già citato fodero della tomba 25 A di Ameglia, che reca il motivo vegetale inciso, di cui abbiamo già parlato, sotto l'imboccatura (Rapin 2008, 242).

In questo quadro di 'Masterpieces' disperse tra i Senoni, i Boii e gli Insubri, va inserito infine l'eccezionale complesso delle 21 'Bronzebleche aus Comacchio' (Jacobstahl 1934) appartenente probabilmente al ricco corredo di una tomba celtica del territorio di Spina (Vitali 1994, 265-7).

Va aggiunto inoltre che i restauri effettuati in questi ultimi anni sulle armi lateniane delle necropoli di Monte Biele e di Monterenzio Vecchio, e di altre necropoli del territorio dei Cenomani (Salzani 1996) hanno largamente arricchito il quadro delle presenze di filoni, correnti e motivi iconografici lateniani presso altre comunità di Celti d'Italia, dalla metà del IV sec. a.C. in poi (Szabó 2008; Lejars 2003).

3.1. Rispetto alle decorazioni dei foderi di Filottrano e di Moscano di Fabriano gli esemplari di nuova scoperta presentano elementi di contatto ed elementi di novità: il fodero della tomba 53 di Casalecchio ha una decorazione vegetale a stampo organizzata in un doppio fregio longitudinale, lungo i due bordi del fodero, che ripropone, in maniera molto densa e su una lamina di ferro, la decorazione del fodero di Filottrano: due trisceli riuniti da una esse obliqua (motivo A2b di Verger 1987, 291-4). Quest'ultima è stata costruita su due file speculari di viticci, ripetute ai due lati della nervatura mediana del fodero. La datazione che viene proposta (metà del IV sec. a.C.)—cioè LT B1—è più recente di quella 'tecno-morfologica' del fodero di Filottrano, ma l'esemplare di Casalecchio non è

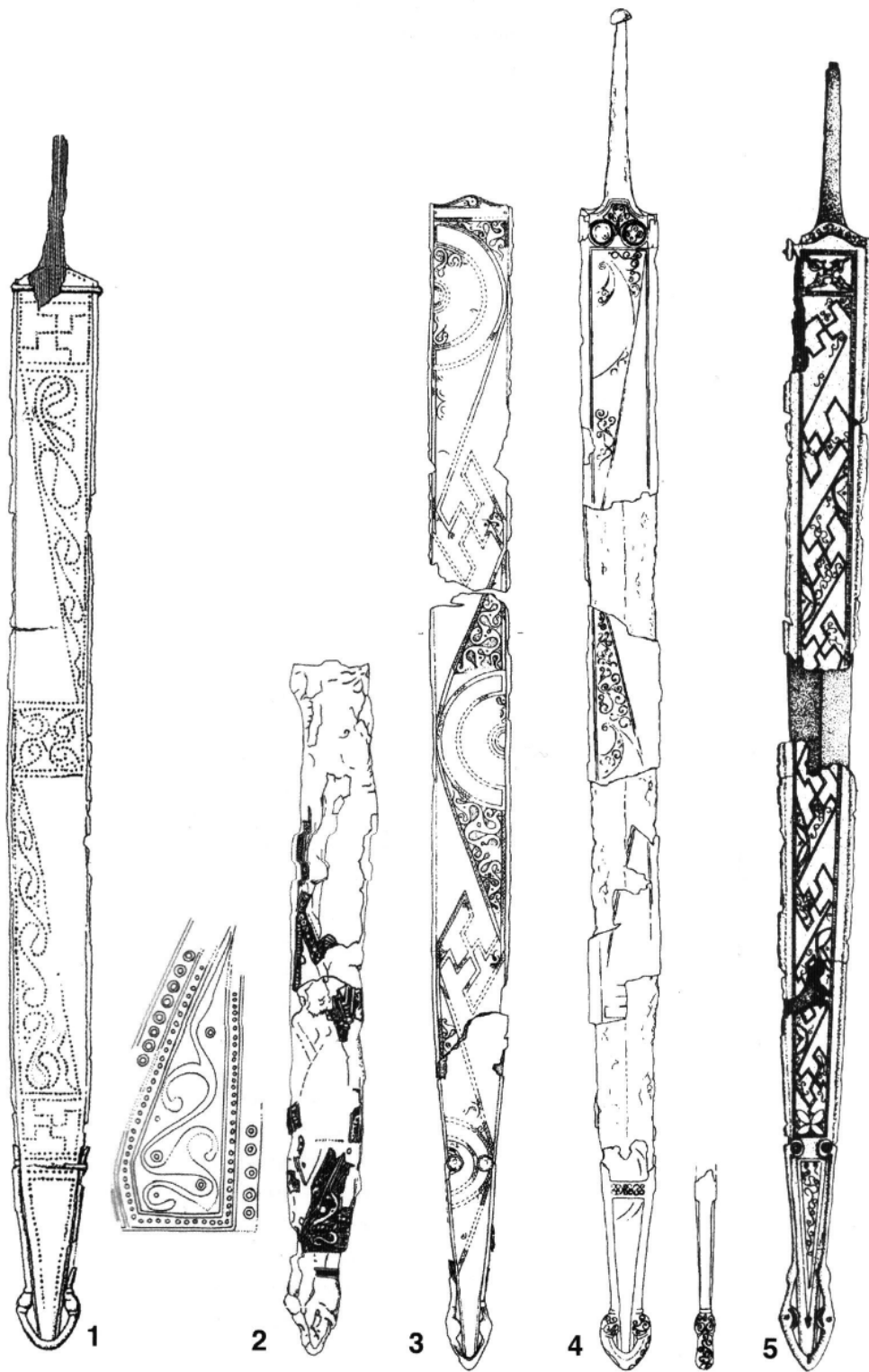


Fig. 2—(1) Fodero di Prosnes-Les Vins de Bruyère t. 1; (2) fodero di Larchant (Seine-et-Marne); (3) fodero di Monte Bibele t. 126; (4) fodero di Varenna; (5) fodero di Rezi-Rezicsar (disegni non in scala).

ancora stato oggetto di uno studio approfondito che potrebbe rialzarne la cronologia ad esempio nel secondo quarto del IV sec. Va sottolineato il fatto che la necropoli di Casalecchio, situata in pieno territorio boico, presenta caratteri culturali che la legano alla Champagne piuttosto che ad altre aree transalpine e corrisponderebbe dunque a un gruppo di Senoni stanziatisi in questo territorio a partire dagli inizi del IV sec. a.C.

I foderi di Monte Tamburino tomba 126 e di Varenna sembrano usciti da uno stesso atelier, per lo schema generale secondo il quale è organizzata la decorazione. Lo stesso schema era già presente nel fodero della tomba 1 di Prosnes, Les Vins de Bruyère (Marna) (Fig. 2.1), che, a partire dagli indizi tecnologici di costruzione del puntale e dall'associazione tombale con un bicchiere carenato, è stato datato tra il terzo e l'ultimo quarto del V sec. a.C. (Rapin 2008, 256, fig. 8). L'interesse di questo pezzo sta nella decorazione a sbalzo che associa elementi geometrici desunti dal repertorio del V sec. a.C. e due lunghi motivi vegetali curvilinei inseriti in due campi triangolari 'qui apparaissent ici pour la première fois sur un fourreau du Ve s.' (Rapin 2008, 256) e che costituiscono il precedente dei due esemplari italiani appena ricordati. Un fodero che richiama da vicino sia gli esemplari di Monte Bibele t. 126 e di Varenna sia quello più antico di Prosnes, Les Vins de Bruyère t. 1, proviene da Rezi-Rezicsér in Ungheria (Fig. 2.5) (Szabó 2008, 226–8; Kovács *et al.* 1987, 123–4, pl. XXXIII). Questo fodero, da attribuire al primo quarto/prima metà del IV sec. a.C. sfortunatamente è fuori contesto ed apre il dibattito su come e quando esso sia giunto in area danubiana. Incontestabile resta comunque il suo rapporto stretto per morfologia e caratteristiche del decoro con prototipi di origine marniana come il fodero di Larchant (Seine-et-Marne) (Fig. 2.2) ed anche col tipo di decorazione del fodero di Varenna (Szabó 2008, 226).

La presenza del fodero di Rezi-Rezicsér in area celtica orientale può essere spiegata con le stesse ragioni che vedono in Italia i foderi di Monte Bibele t. 126, di Varenna e di Ameglia t. 25A e cioè con la mobilità delle armi a fianco di quella dei guerrieri.

Per la prima metà del IV sec. a.C. per questo settore dell'artigianato sembra incontestabile il primato cronologico di uno o più *foyers* transalpini rispetto all'attività di *ateliers* d'armaioli senonici in Italia.

E' a partire dalla metà del IV sec. a.C., che prodotti particolari come gli elmi metallici a sud del Po o diversi tipi di spade lateniane in area transpadana, mostrano le abilità, le

tecnologie, le iconografie di un dinamico ed inventivo artigianato artistico celto-italico.

Bibliografia

- Baumgärtel, E. 1937 The Gaulish necropolis of Filottrano in the Ancona Museum. *Journal of the Royal Anthropological Institute* 67, 231–87.
- Brizio, E. 1901 Il sepolcreto gallico di Montefortino presso Arcevia. *Monumenti Antichi Lincei* IX, 617–792.
- Corradini, N. 1991 La céramique peinte à décor curviligne rouge et noir en Champagne: approche technologique et chronologique. In *La céramique peinte celtique dans son contexte européen. Actes du Symposium International. Hautvillers 1987*, 109–42. Mémoire de la Société Archéologique Champenoise 5. Reims. Société Archéologique Champenoise.
- Frey, O.H. 1971 Das keltische Schwert von Moscano di Fabriano. *Hamburger Beiträge zur Archäologie* 1–2, 173–9.
- Jacobstahl, P. 1934 Keltische Bronzebeschläge in Berlin. *Prähistorische Zeitschrift* XXV, 62–134.
- Kovács, T., Petres, É. and Szabó, M. 1987 *Corpus of Celtic finds in Hungary*. Transdanubia I. Budapest. Akadémiai Kiado.
- Kruta, V. 1974 Remarques sur l'apparition du rinceau dans l'art celtique. *Etudes celtiques* 14, 21–30.
- Kruta, V. 1978 Le casque d'Amfreville-sous-les-Monts et quelques problèmes de l'art celtique du IVe siècle avant notre ère. *Etudes celtiques* 15, 405–24.
- Kruta, V. 1992 Materiali senonici del Piceno e arte celtica. In G. Maroni (ed.), *La Civiltà picena nelle Marche, Studi in onore di G. Annibaldi. Atti del convegno (Ancona 10–13 luglio 1988)*, 388–401. Ripatransone.
- Kruta, V. 2000 *Les Celtes. Histoire et dictionnaire*. Paris. Robert Laffont.
- Kruta, V. 2006 Les Sénons de l'Adriatique au IIIe siècle avant J.-C. Etat de la question. In F. Lenzi (ed.), *Rimini e l'Adriatico nell'età delle guerre puniche, Atti del Convegno internazionale di studi Rimini, Musei Comunali 25–27 marzo 2004*, 275–84. Bologna. Ante Quem.
- Landolfi, M. 1991 La tomba di Moscano di Fabriano. In S. Moscati *et al.* (eds), *I Celti*, 287. Venezia. Bompiani.
- Landolfi, M. 2000 Il Pittore di Filottrano e la ceramica attica a figure rosse nel Piceno. In B. Sabatini (ed.), *La*

- céramique attique du IV^e siècle en Méditerranée occidentale. Actes du colloque international d'Arles (1995)*, 77–91. Collection Centre Jean Bérard 19. Naples. Centre Jean Bérard.
- Lejars, T. 2003 Les fourreaux d'épée laténiens. Supports et ornements. In D. Vitali (ed.), *L'immagine tra mondo celtico e mondo etrusco-italico. Aspetti della cultura figurativa nell'antichità*, 9–70. Bologna. GEDIT Edizioni.
- Ortalli, J. 2008 L'insediamento di Casalecchio di Reno (Bologna). In D. Vitali and S. Verger (eds), *Tra mondo celtico e mondo italico. La necropoli di Monte Bibele. Atti della Tavola rotonda (Roma 1997)*, 299–322. Bologna.
- Rapi, M. 2007 Gli oggetti rinvenuti e l'interpretazione della scoperta. In M.L. Ubaldi (ed.), *Le tombe di guerrieri di Varenna*, 11–20. Como. Comune di Como.
- Rapin, A. 2003 Les analyses sémiologiques de l'image: l'iconographie du deuxième âge du Fer. In O. Buchsensschutz, A. Bulard, M.-B. Chardenoux and N. Ginoux (eds), *Décors, images et signes de l'âge du fer européen, XXVI^e colloque de l'AFEAF, Paris et Saint-Denis 2002*, 49–62. Tours. Association française pour l'étude de l'Âge du Fer.
- Rapin, A. 2008 Les Celtes et leurs voisins septentrionaux: nouveaux outils d'analyses pour l'armement laténien du sud de l'Europe aux Ve et IV^e s. av. J.-C. In D. Vitali and S. Verger (eds), *Tra mondo celtico e mondo italico. La necropoli di Monte Bibele, Atti della Tavola rotonda (Roma 1997)*, 237–68. Bologna.
- Rapin, A., Szabo, M. and Vitali, D. 1992 Monte Bibele, Litér, Rezi, Piscolt. Contributions à l'origine du Style des épées hongroises. *Communicationes Archaeologicae Hungariae* (1992), 23–54.
- Salzani, L. 1996 *La necropoli gallica e romana di S. Maria di Zevio (Verona)*. Documenti di Archeologia 9. Mantova. Padus Edizioni.
- Szabó, M. 2008 Stiles celtiques à Monte Bibele: les fourreaux décorés. In D. Vitali and S. Verger (eds), *Tra mondo celtico e mondo italico. La necropoli di Monte Bibele, Atti della Tavola rotonda (Roma 1997)*, 223–36. Bologna.
- Verger, S. 1987 La genèse celtique des rinceaux à triscèles. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz* 34, 287–339.
- Vitali, D. 1994 I Celti e Spina. In F. Rebecchi (ed.), *Spina e il Delta padano. Riflessioni sul catalogo e sulla mostra ferrarese*, 253–73. Roma. L'Erma di Bretschneider.
- Vitali, D. 1996 Manufatti in ferro di tipo La Tène in area italiana: le potenzialità non sfruttate. *Mélanges de l'École Française de Rome Antiquité* 108, 575–605.
- Vitali, D. 2008 Chaire Internationale. In *Cours et travaux du Collège de France—Résumés 2006–2007, Annuaire 107^e année*, 901–26. Paris. Collège de France.

The elusive image

John Waddell

In writing of the image of man in La Tène art, Paul Jacobsthal examined the peculiar and delusive blending of human faces and ornament that sometimes occurred on metalwork such as torcs, girdle-hooks, rings and fibulae. He was struck by the fact that the Greeks might blend abstract or floral ornament with human faces but for them a spiral was always a spiral and a face always a face; it was always clear where one began and the other ended. Not so with the faces or masks in La Tène art. Jacobsthal (1941, 10; 1944, 18) wrote, 'there is something fleeting and evanescent about these masks, which are often not even complete faces, only bits of a face. It is the mechanism of dreams where things have floating contours and pass into other things. One might call the style the Cheshire Style: the cat appears in the tree and often just the grin of the cat.' This wry—and, indeed, slightly frivolous—allusion to Lewis Carroll's famous disappearing cat who left just his smile behind has also left its mark in the study of this extraordinary art style. It prompted Vincent Megaw (1962, 24) to refer to the 'Disney-like abstraction' apparent in the fusing of human and floral elements and to compare the way a face might be broken down into a number of curvilinear forms, crescents, ovals and arcs to the Walt Disney cartoonist's rendering in similar simple curves of the face of Mickey Mouse. This he called the 'Cheshire cat style' (Megaw 1965, 124). While Megaw's various studies of these ambiguous images have added greatly to our understanding of the intricacies of La Tène art, I am not sure that phrases such as 'Disney style', 'funny faces', 'pseudo-faces' and 'visual punning' (Megaw 1970) are especially illuminating, but in their empathic approach they are perhaps preferable to the restraint of Martyn Jope, who, in his monumental *Early Celtic art in the British Isles*, skirts the challenge to see meaning in this art and rarely strays beyond a consideration of features such as technique, balance, symmetry and ambiguity. For him, in this imagery we stand on the threshold of an expressive art considered as a cultivated expression of feeling and, for instance, the designs on the Petrie Crown are elegantly but guardedly described as fine relief ornament composed of lapping trumpet ribs. On a series of Irish bronze discs, 'domed caps of long slender trumpets are worked into a

medial multiple articulation, with tapering, steeply arised ribs lapping up under the trumpet-mouths' (Jope 2000, 3, 134).

Like many other writers, Barry Raftery (1994a, 163) was right to see La Tène art as a phenomenon of great beauty and originality that undoubtedly had a meaning for its creators—much of which is lost to us. But all is not lost, and in this brief acknowledgement of his enormous contribution to the archaeology of the Irish Iron Age, I hope to demonstrate that some meaning is discernible in the Irish and British corpus. This is a 'primitive art' but only in the non-pejorative sense that it is the expressive language of a pre-literate people, and the challenge we face is one of translation. Jope was entirely correct to emphasise its aesthetic qualities; this was undoubtedly a preoccupation of those who created the designs and those who viewed them. As is well known, however, some of the artwork is so finely wrought that it is difficult to read, even in the bright light of a modern museum case; the minute detail of some Irish scabbard decoration is a case in point, and this may mean that the designs had a very personal significance, perhaps to be seen by a select few.

Exceptional technical skill of this sort has an ancient pedigree. We see it, for example, many centuries before in those decorated late Bronze Age hair-rings where the striped examples are solid pieces that have been inlaid with gold with a high silver content and cast using the lost-wax method (Meeks *et al.* 2008), or in those lock- or tress-rings where each plate has been constructed of concentric rings of thin gold wire joined together in work of extraordinary and unparalleled delicacy (Eogan 1994, 83). Whether in lock-ring, hair-ring or sheet-bronze cauldron, craftsmen displayed an extravagant interest in technical virtuosity, and this, presumably, was to indulge the aesthetic tastes of their patrons. An increasing intellectual appreciation of the visual and artistic qualities of fine metalwork became one of the marks of an élite minority, a point made by Avery (1997) in his study of the decoration on the Broighter torc, which he saw as entirely abstract. This appreciation is undoubtedly the case in the sphere of the finest La Tène art, but now an admiration of technical skill is accompanied by a refined

understanding of what are, in effect, a complex iconography and a symbolic language.

A pair of large bronze discs found together at Monasterevin, Co. Kildare, has given the name Monasterevin-type to a group of four complete and three fragmentary discs (Fig. 1). All but the Monasterevin pair are unprovenanced, and even they have no details of the circumstances of their discovery recorded. Made of sheet bronze, these discs are usually slightly concave and range in diameter from about 25cm to just over 30cm; their purpose is unknown. Decoration is similar but not identical and consists of bold repoussé work up to 10mm high. The overall pattern is a fairly consistent one: a large central circle or roundel, varying from a slight concavity to a deep bowl-shaped hollow, is placed within a symmetrical field of trumpet curves forming an approximately U-shaped or semicircular arrangement with spiral terminals containing a prominent circle. Given the positioning of a pair of spirals above a circle, it is probably not surprising that this design has been described in different ways: 'great staring faces, enigmatic as so often in Celtic art' (Megaw and Megaw 2001, 236), or 'while the ornament is essentially a geometrical fantasy, it is difficult not to see a grotesque face behind the fantasy' (Piggott and Daniel 1951, 20). Paul-Marie Duval (1977, 230) thought the design could be deliberately ambiguous, a face or an open-mouthed fish, but Jope (2000, 272) simply saw decoration derived ultimately from the palmette schema.

As Barry Raftery (1987, 17) recognised, there are evident stylistic links between these Monasterevin discs and the Petrie Crown. In fact, the clue to the symbolism on these puzzling discs lies in one of the smaller discs on that object (Fig. 1, 4), so called because it was once in the collection of the nineteenth-century antiquary George Petrie, who did not record its provenance. It is a fragmentary piece, now consisting of a band of openwork sheet bronze with a pair of slightly dished discs attached to the front. Each disc apparently supported a conical bronze horn, one of which survives. The band, the discs and the horn are each very skilfully decorated with a symmetrical design of thin and elongated trumpet curves, some terminating in different sorts of bird's heads. The design on the disc below the surviving horn is particularly interesting because the bird's-head terminals flank a circle set in a crescent form. This is not, as one writer thought, a face with an upturned curling moustache (Lerné-de Wilde 1982, 104) but a solar symbol, a representation of the solar boat with bird's-head prow and

stern that conveyed the sun across the heavens.

As Sprockhoff (1955) showed over half a century ago, this is a motif of considerable antiquity that extends well beyond the Celtic realms (Wirth 2006, with bibliography). As he demonstrated (Fig. 2), it occurs in the central European Urnfield world, in Scandinavia and in the La Tène period, the sun being represented by a disc, a circle or a wheel. According to Kristiansen and Larsson (2005, 307), swan heads replaced horse heads as the dominant animal on sun ships in the thirteenth–twelfth centuries BC. A series of torcs from the Marne display variations on the theme (Fig. 2, 1–2 and 5–6): on one a pair of sun ships flank a triple roundel, possibly a triple sun; a wheel-shaped device flanked by birds occurs on a second, and on a third a pair of birds confront not a triple sun but a stylised image of the Tree of Life—as Jacobsthal (1944, 28) once pointed out.

The motif of paired birds and sun roundel appears in two different guises on the Petrie Crown and finds its clearest and fullest expression on the disc below the surviving horn, where a wheel motif gives emphasis to the solar symbolism. The designs on the Monasterevin-type discs are more stylised and the paired bird heads reduced to distinct curving features or, as Jope (2000, 135) saw it, the bold simple finial curves are detached and jumbled. Nonetheless, they have not lost all their bird-like qualities, and on one of the unprovenanced pieces a single bird's head survives (Fig. 1, 3). In the past, when compared to the Petrie Crown, the images on these discs would have been judged to be a severe case of stylistic disintegration or typological regression, but something much more interesting is happening here. Clifford Geertz (1983, 98) has remarked that to approach 'primitive art' from the side of Western aesthetics leaves us with an externalised conception of the phenomenon supposedly under intense inspection but actually not even in our line of sight.

On these discs the artist may be seeking to hide the solar symbol, or more likely is trying to reduce it to its essential elements and in doing so giving greater emphasis to its inherent strength. In a very deliberate act, a traditional symbol is altered to give it a new or different or more powerful meaning. Just as repetition, such as triplism, may accentuate the power of an image, so dissection may expose its inner qualities. The possibility that both the sun ship and a human face are depicted should not be discounted either—this art is multivalent, with more than one potential reading.

This elusive image of the solar boat is not confined to Ireland. It is to be found on British metalwork as well (Fig. 3),

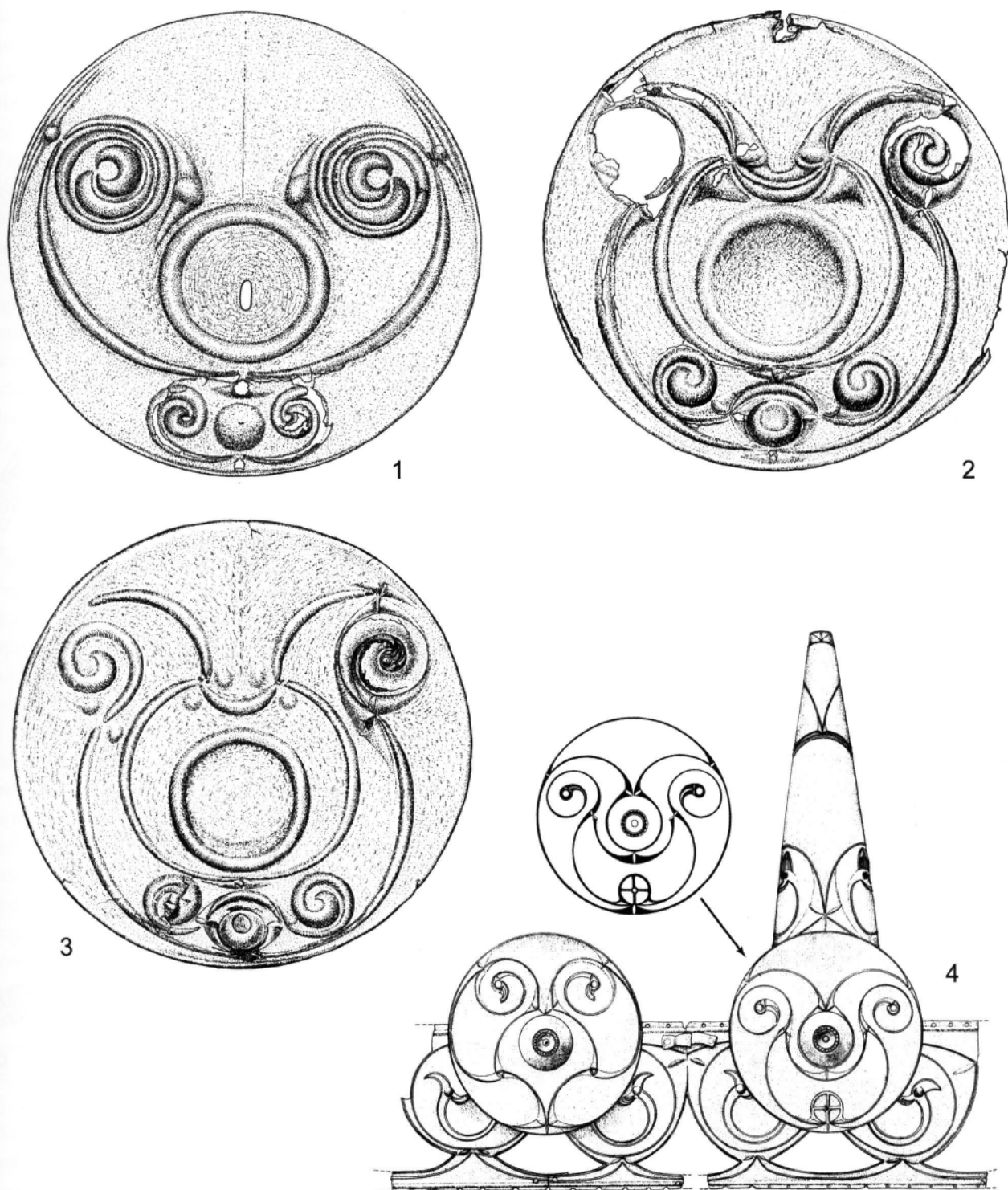


Fig. 1—1–2. Bronze discs from Monasterevin, Co. Kildare. 3. Unprovenanced bronze disc. 4. The Petrie Crown (all after Raftery 1983). (Various scales.)

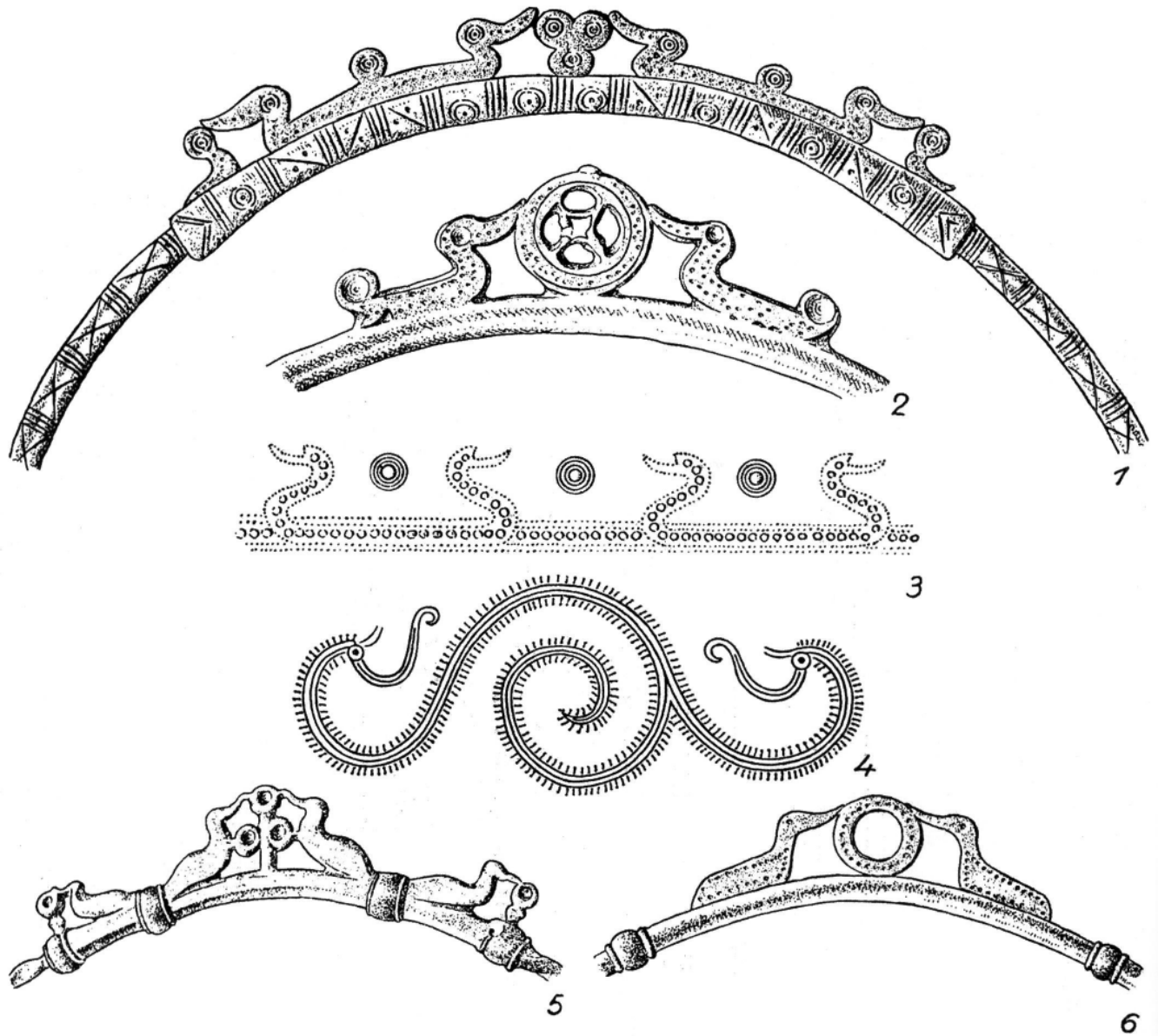


Fig. 2—Examples of solar symbolism (from Sprockhoff 1955). On no. 5, birds flank a stylised representation of the Tree of Life. 1. Attancourt (Haute-Marne). 2. Unprovenanced (Marne). 3. Rossin, Kr. Anklam (Mecklenburg-Vorpommern). 4. Billeberga (Scania). 5. Breuvery (Marne). 6. Pogny (Marne).

most notably on the celebrated Battersea shield (Fig. 3, 1), where, along with swastika-like motifs, it is a prominent feature on the two smaller circular panels (Stead 1985). It figures in a minor way on the decorated bronze band on the Aylesford bucket (Brailsford 1975, 83), where two pairs of bird-like creatures surround a whirligig (Fig. 3, 2). It occurs in an attenuated form on the unprovenanced Gibbs mirror and on the Aston mirror (Fig. 3, 3–4), where the Megaws see a Cheshire cat face (Megaw and Megaw 2001, 212). This solar imagery, which is surely represented by the swastika and which is probably lurking in motifs such as whirligigs, triquetras and triskeles (Green 1991, 48) as well, is just one of many indicators of widespread and deeply rooted belief systems that evidently transcend the numerous regional archaeologies that make up the Iron Age of these islands and adjacent parts of continental Europe. Vincent and Ruth Megaw (1993; 1994) have emphasised more than once the importance of a visual symbolism that reflected a form of communication and a wide community of concepts and ideas.

Mention has been made of a torc from the Marne bearing a pair of birds confronting a stylised image of the Tree of Life (Fig. 2, 5). Iron Age representations of this famous motif are well known (Kruta 1986). In a classic depiction, a likeness of two horned animals protecting a palm tree with the Greek name *Korisios* below is stamped on the blade of an iron sword of the late La Tène period found in the River Zihl at Port in Switzerland (Wyss 1955; 1956; well illustrated in Megaw and Megaw 2001, no. 240). Presumed to be ultimately of Middle Eastern origin (though sacred trees are likely to have an ancient pedigree in Europe too), it figures on belt hooks and sword scabbards in various parts of the Continent as a part of the wider iconography of dragon pairs (Fig. 4, 2–3). These pairs consist of opposed S-shaped scrolls with dragon-like heads, and on openwork belt hooks they may flank a tiny human figure (the master of the beasts), a tree or some other design. On swords these dragonesque motifs occasionally flank a leaf-like motif or palmette derivative, interpreted as a stylised Tree of Life, as on a bronze scabbard from Bussy-le-Chateau, Marne (Fig. 4, 3), where a pair stand on either side of a leaf-shaped device (Kruta 1986, 16). These dragon pairs have been seen as emblems of status or achievement in battle. The depiction of such fierce beasts may have served to ward off harm and there may have been great Celtic hero-tales associated with them (Megaw and Megaw 1990). Dragon pairs are now known from the River Thames in the west to Romania in the east, and they span at least two centuries.

Some years ago Barry Raftery (1994b) suggested that a pair of loosely delineated S-shaped scrolls on a scabbard (no. 2) from Lisnacrogher, Co. Antrim, might derive from the dragon-pair motif (Fig. 4, 1). It is a truth universally acknowledged, however, that these fierce dragons usually have open jaws so it is hard to see any dragons here, but the parallel is worth pursuing. Kruta and the Megaws, among others, have noted the close relationship between opposed S-scrolls and dragon pairs; sometimes the S-scroll is a schematic rendering of the monstrous guardian animal. The long, elegant suite of opposed S-scrolls with their bifurcating finials on Lisnacrogher 2 is surely an extended variation on the dragon-pair theme, repetition giving added emphasis to its symbolic charge. Other Irish scabbards are decorated with designs essentially composed of a descending running wave of S-scrolls with a clear tendril or vegetal element that is related to Tree of Life imagery. The sequence of S-scrolls on a scabbard (no. 1) from Toome is especially interesting if, as Raftery suggests, the scrolls have associated half-palmettes (Fig. 4, 5), because this then becomes an allusion to the opposed scroll or dragon pair flanking a leaf from the Tree of Life—as displayed on the Bussy-le-Château scabbard, for instance (Fig. 4, 3). Just how elusive this imagery may be is neatly demonstrated by Kruta (1986, 32), who shows that opposed S-scrolls and a palm leaf from the Tree of Life may hide in the coiffure of a head on a gold coin of the Parisii (Fig. 4, 4).

The challenge to translate the language of scabbard decoration is particularly difficult. This is a complex iconography and not just a convenient way of filling a long narrow space with ornament. In this context it is an iconography specifically related to weaponry and to warriors, and it contains elusive elements of animal and tree imagery. In some way it may encode the life history of the weapon or the philosophy of its owner. The idea that swords might tell of their famous deeds is a widespread one, and scabbard decoration might conceivably be a mnemonic device for those who prized them and wished to recount their prowess. John Carey (1994) has drawn attention to some references to oracular swords in early Irish literature:

‘... they had their swords upon their thighs when they were boasting; for their swords would turn against them when they made a false boast. That is plausible; for demons used to speak to them from their weapons . . .’ (*Serglige Con Culainn*, ‘The Wasting Sickness of Cú Chulainn’).

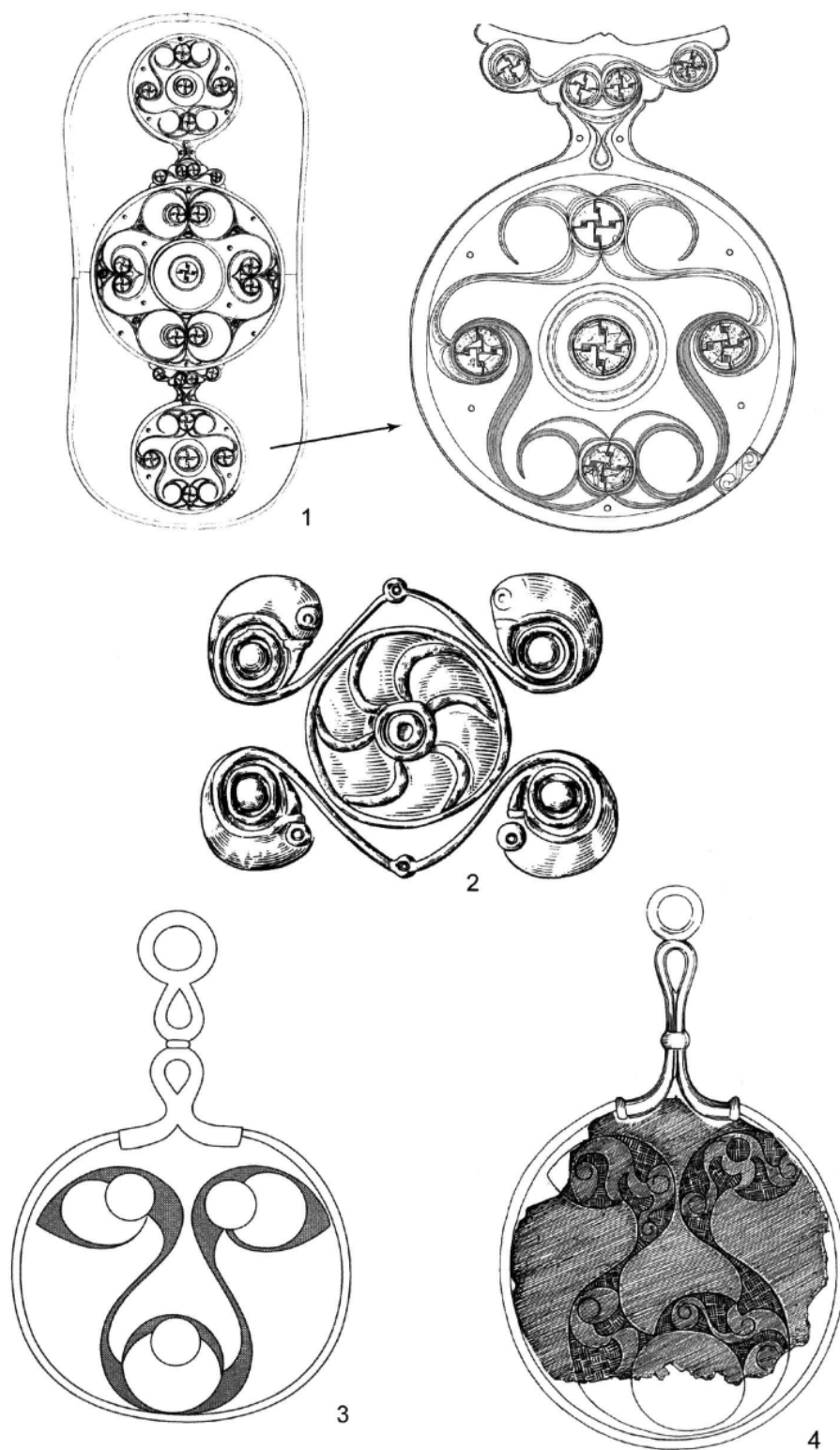


Fig. 3—1. The Battersea shield, with image of solar boat highlighted. 2. The Aylesford bucket. 3. The unprovenanced Gibbs mirror. 4. Mirror from Aston, Herts (1–3 after Jope 2000, where the drawing of the shield is reversed; 4 after Stead and Hughes 1997). (Various scales.)

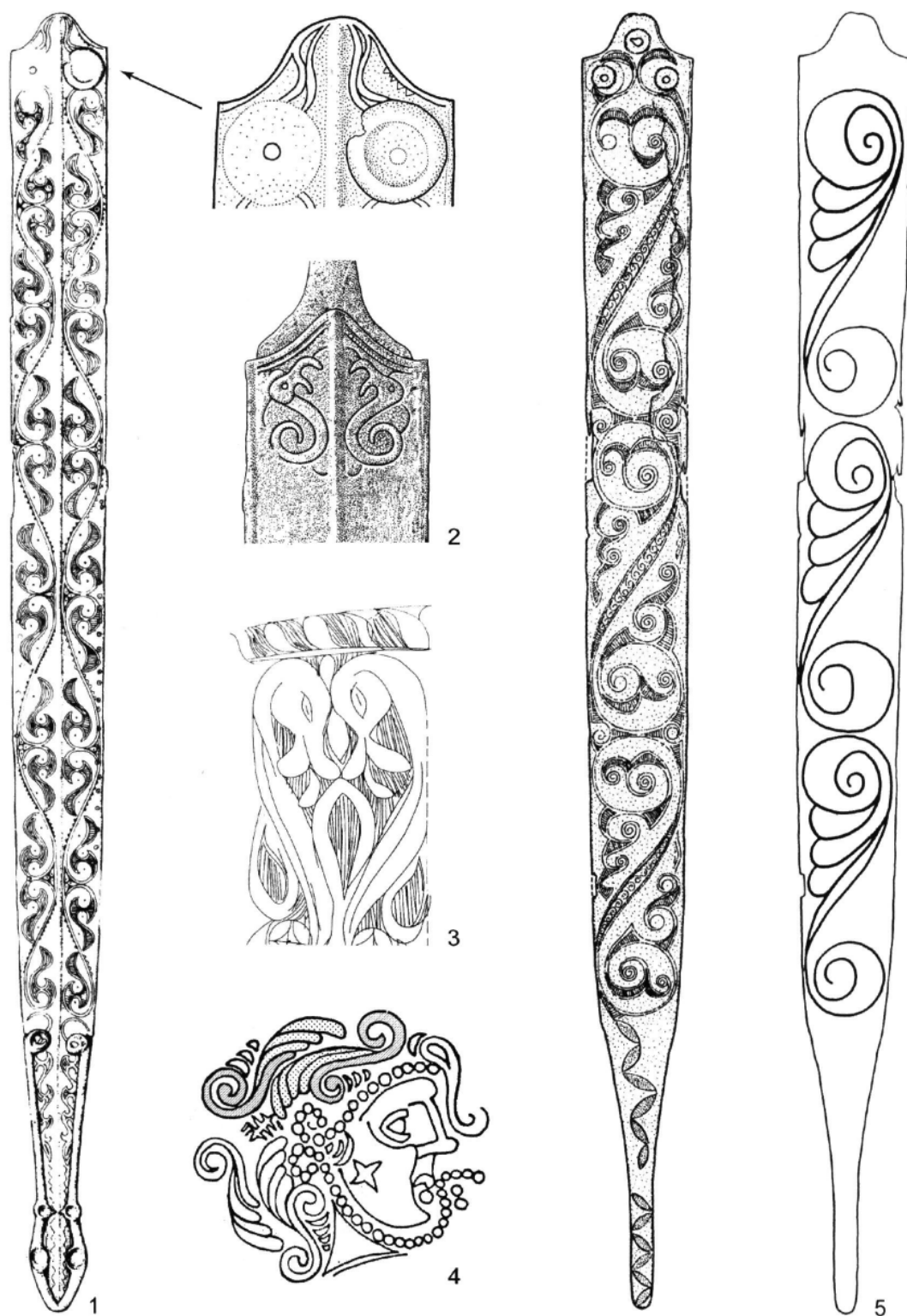


Fig. 4—1. Scabbard no. 2 from Lisnacrogher. 2. Dragon pair on an iron scabbard from Hungary. 3. Dragon pair on a bronze scabbard from Bussy-le-Château (Marne). 4. Gold coin of the Parisii, with one set of palmettes and S-scrolls highlighted. 5. Scabbard no. 1 from Toome (1 after Raftery 1983; 2–3 after Megaw and Megaw 2001; 4 after Kruta 1986; 5 after Raftery 1994b). (Various scales.)

'Ogma drew the sword and cleaned it. Then the sword related everything which had been done with it, for it was usual for swords in those days, when they were drawn, to reveal the deeds which were done with them' (*Cath Maige Tuired*, 'The Second Battle of Mag Tuired').

The swords may be silent now, but some La Tène symbols may still speak to us.

References

- Avery, M. 1997 The patterns of the Brougher torc. *Journal of Irish Archaeology* 8, 73–89.
- Brailsford, J. 1975 *Early Celtic masterpieces from Britain in the British Museum*. London. British Museum Publications.
- Carey, J. 1994 The uses of tradition in *Serglige Con Culainn*. In J. P. Mallory and G. Stockman (eds), *Ulidia. Proceedings of the First International Conference on the Ulster Cycle of Tales, Belfast and Emain Macha*, 8–12 April 1994, 77–84. Belfast. December Publications.
- Duval, P.-M. 1977 *Les Celtes*. Paris. Gallimard.
- Eogan, G. 1994 *The accomplished art. Gold and gold-working in Britain and Ireland during the Bronze Age (c. 2300–650 BC)*. Oxford. Oxbow Books.
- Geertz, C. 1983 *Local knowledge. Further essays in interpretive anthropology*. New York. Basic Books.
- Green, M. 1991 *The sun-gods of ancient Europe*. London. Batsford.
- Jacobsthal, P. 1941 *Imagery in early Celtic art. The Sir John Rhys Memorial Lecture 1941*. London. British Academy.
- Jacobsthal, P. 1944 *Early Celtic art*. Oxford. Clarendon Press.
- Jope, E.M. 2000 *Early Celtic art in the British Isles*. Oxford. Clarendon Press.
- Kristiansen, K. and Larsson, T.B. 2005 *The rise of Bronze Age society. Travels, transmissions and transformations*. Cambridge University Press.
- Kruta, V. 1986 Le corail, le vin et l'arbre de vie: observations sur l'art et la religion des Celtes du Ve au Ier siècle avant J.-C. *Etudes Celtiques* 23, 7–32.
- Lerné-de Wilde, M.L. 1982 Le 'Style de Cheshire Cat', un phénomène caractéristique de l'art celtique. In P.-M. Duval and V. Kruta (eds), *L'Art celtique de la période d'expansion*, 101–23. Geneva. Droz.
- Meeks, N.D., Craddock, P.T. and Needham, S.P. 2008 Bronze Age penannular gold rings from the British Isles: technology and composition. *Jewellery Studies* 11, 13–30.
- Megaw, J.V.S. 1962 A bronze mount from Macon: a miniature masterpiece of the Celtic Iron Age reappraised. *Antiquaries Journal* 42, 24–9.
- Megaw, J.V.S. 1965 Two La Tène finger rings in the Victoria and Albert Museum, London: an essay on the human face in early Celtic art. *Præhistorische Zeitschrift* 43–4, 96–166.
- Megaw, J.V.S. 1970 Cheshire Cat and Mickey Mouse: analysis, interpretation and the art of the La Tène Iron Age. *Proceedings of the Prehistoric Society* 36, 261–79.
- Megaw, J.V.S. and Megaw, M.R. 1990 'Semper aliquid novum . . .': Celtic dragon-pairs re-reviewed. *Acta Archaeologica Academiae Scientiarum Hungaricae* 42, 55–72.
- Megaw, J.V.S. and Megaw, M.R. 1993 Cheshire Cats, Mickey Mice, the new Europe and ancient Celtic art. In C. Scarre and F. Healy (eds), *Trade and exchange in prehistoric Europe. Proceedings of a conference held at the University of Bristol, April 1992*, 219–32. Oxford. Oxbow Books.
- Megaw, R. and Megaw, V. 1994 Through a window on the European Iron Age darkly: fifty years of reading early Celtic art. *World Archaeology* 25, 287–302.
- Megaw, R. and Megaw, V. 2001 *Celtic art. From its beginnings to the Book of Kells*. London. Thames and Hudson.
- Piggott, S. and Daniel, G.E. 1951 *A picture book of ancient British art*. Cambridge University Press.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1987 La Tène art in Ireland. In M. Ryan (ed.), *Ireland and Insular Art A.D. 500–1200*, 12–22. Dublin. Royal Irish Academy.
- Raftery, B. 1994a *Pagan Celtic Ireland. The enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 1994b Reflections on the Irish scabbard style. In C. Dobiat (ed.), *Festschrift für Otto-Herman Frey zum 65. Geburtstag*, 475–92. Marburger Studien zur Vor- und Frühgeschichte 16. Marburg. Hitzeroth.
- Sprockhoff, E. 1955 Central European Urnfield culture and Celtic La Tène: an outline. *Proceedings of the Prehistoric Society* 21, 257–81.

- Stead, I.M. 1985 *The Battersea shield*. London. British Museum Publications.
- Stead, I.M. and Hughes, K. 1997 *Early Celtic designs*. London. British Museum Press.
- Wirth, S. 2006 Vogel-Sonnen-Barke. In H. Beck, D. Geuenich and H. Steuer (eds), *Reallexikon der Germanischen Altertumskunde*, vol. 32, 552–63. Berlin/New York. De Gruyter.
- Wyss, R. 1955 Das Schwert des Korisios. Zur Entdeckung einer Griechischen Inschrift. *Archaeologia Helvetica. Jahrbuch des Bernischen Historischen Museums in Bern* 34, 201–22.
- Wyss, R. 1956 The Sword of Korisios. *Antiquity* 30, 27–8.

5. Later prehistoric life and death

Iron Age Ireland—finding an invisible people

Katharina Becker

One of Barry's talents is the creation of phrases that succinctly capture an issue and have long-lasting resonance. This is the case, for example, with 'The invisible people', the title of Chapter 6 of *Pagan Celtic Ireland* (1994), which dealt with the meagre evidence for the actual inhabitants of the Irish Iron Age, discussing not just the domestic evidence of the period but all the evidence relating to subsistence, domestic crafts, and personal adornment and weaponry (Raftery 1994, 112–46). Very much a statement in itself is the fact that only one out of 35 pages in this chapter actually deals with possible settlement sites. This reflects the baffling—to borrow a very appropriate term frequently applied by Barry to the Iron Age material—scarcity of such evidence fifteen years ago. Today a much larger body of data is available to us, new evidence from the major expansion of large-scale development-led projects and research which Barry has seen emerge in recent years with great excitement. This paper presents a brief overview of the new data and suggests how they may help in addressing some of the long-standing issues and questions that Barry has dealt with in his writings.

Old problems

'Die einfachen Gebrauchsgegenstände des täglichen Lebens, unverziert und ohne bestimmte Form, hat man bis heute im archäologischen Befund nur sporadisch erkannt. Dies ist ein direktes Ergebnis unserer momentanen Unfähigkeit, die normalen Siedlungen der eben genannten Periode zu erkennen und auszugraben' (Raftery 1998a, 467).

Barry touches here on two of the central and closely related problems in the study of the Irish Iron Age: the traditional lack of domestic and mundane, everyday artefacts and of a settlement record in the Irish Iron Age. The corpus of La Tène artefacts (Raftery 1983; 1984) and a small number of Hallstatt objects (Eogan 1964; 1983) have until now been almost synonymous with the Irish Iron Age. As Barry has never ceased to stress, however, they are mostly high-status artefacts—decorated horse gear, weaponry, gold ornaments, ceremonial items such as the Monasterevin discs (cf. Ó Floinn, this volume) or the Petrie crown, stone

sculpture and decorated rotary quernstones (Caulfield 1977). Further caution regarding the representativeness of these artefacts is called for when we consider that they were mostly deposited in the landscape, particularly in wet places (Becker, forthcoming a; Bourke 2001), but not on settlement sites and rarely in burials. It has, however, been completely unclear, where—and how—the people of the Iron Age lived. No houses, villages or farmsteads could be dated to the period. Hillforts, which were expected to be of Iron Age date as elsewhere, have proved to be a characteristic site type of the Bronze Age (e.g. Raftery 1976a; Grogan 2005; Mallory 1995; Mallory and Warner 1988), and crannogs only rarely produced evidence for Iron Age activity (Fredengren 2002; O'Sullivan 1998). The lack of settlement sites and other evidence for everyday life, which may at first sight suggest an impoverishment or depopulation of the country, stands in stark contrast to the evidence for a well-connected, highly affluent society in other parts of the record. It is clear that sufficient resources were available to support specialists for the production of high-status metalwork as well as the construction of large-scale enterprises in the form of trackways across the bogs of the midlands, linear earthworks (e.g. Lynn 1989; Walsh 1987) and the complex hilltop enclosures such as Navan (Waterman 1997), Dun Ailinne (Johnston and Wailes 2007) or Tara (e.g. Newman 2005; Roche 2002).

As Barry suggested in the above quote, and as we now know, to a large extent it was our inability to recognise and excavate Iron Age sites rather than their non-existence that explains the lack of recorded Iron Age evidence. The most significant obstacle is the absence of a distinct domestic material culture and the absence of metalwork from settlement sites. A pattern established in the Bronze Age is that artefacts are in general rarely found on settlement sites, and the aceramic nature of the Irish Iron Age makes the recognition of Iron Age sites even more problematic (Raftery 1995a). The lack of closed assemblages also has serious implications for the interpretation of the existing artefact record of the period, which, while influenced by the La Tène art style, is still of clearly local character and usually only allows for the broadest dating (Raftery 1984; 1987).

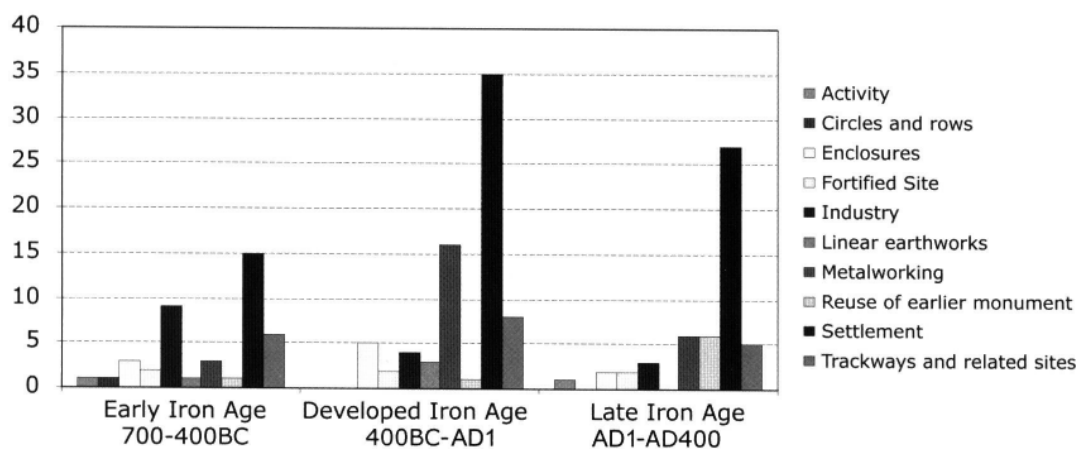


Fig. 1—Iron Age site types.

The new Iron Age

In addition to the well-known so-called 'royal' sites, the linear earthworks and the trackways and platforms in the bogs of the midlands (cf. McDermott *et al.*, this volume), a significant group of sites from work carried out over the last decade are now contributing evidence for what has so far been missing from the Irish Iron Age record—the domestic and industrial. Ranging from possible house or workshop structures and enclosures to *fulachta fiadh*, troughs and midden sites, the record presents a variety of different types of what appear to be settlement and industrial sites. Those sites that may be interpreted as occupation sites currently constitute the largest body of material from the period, and are represented in all phases of the Iron Age (Fig. 1), with a general increase in sites during the developed Iron Age and a decrease in the late Iron Age. Not only iron-working but also other craft activities such as bronze- and glass-working have been documented on some of these sites. More ephemeral evidence consisting of pits, hearths and isolated post- or stake-holes without the presence of a recognisable structure or enclosure has also been recognised as being characteristic of the Iron Age. Such sites, in fact, make up a large portion of the data set, while actual structures are relatively rare. Thirty post or plank constructions of either habitation or workshop character have been identified in the period between 700 BC and AD 400. Most of these sites—of both apparently domestic (e.g. Lisheen, Co. Tipperary: Cross May *et al.* 2005, 296) and industrial (e.g. Marlhill, Co. Tipperary:

Molloy, forthcoming) function—are approximately round in plan and thus represent a continuation of the characteristic type of settlement in this period, not only in a domestic context but also on ceremonial sites such as Navan Fort, Co. Armagh, Dun Ailinne, Co. Kildare, and Rathcroghan, Co. Roscommon (e.g. Fenwick *et al.* 2006).

The overall corpus of sites that can currently be securely dated to the Iron Age comprises more than 200 sites and site complexes (Becker, forthcoming a; Becker *et al.* 2008a; 2008b). This mainly encompasses sites excavated before the year 2004, but also includes some that have been excavated since then. In comparison to the handful of sites that were known in 1994 (compare Fig. 3a with Fig. 3b), this represents a dramatic change, which of course is to some extent due to the sheer number of sites that were excavated in the past decade during the days of the 'Celtic Tiger'. Perhaps the most significant reason, however, for this increase in the *recognition* of Iron Age sites is the more frequent application of scientific dating methods. Both radiocarbon dating and dendrochronological dating have allowed the identification of Iron Age sites in both research and rescue excavation of dryland and wetland sites (cf. E. O'Brien, this volume; McDermott *et al.*, this volume). The number of burials that can be assigned to this period has also increased significantly (McGarry, this volume; 2005; 2007). In the case of the settlement record, the application of scientific dating methods counteracts the general lack of find assemblages and also of diagnostic or recognisable site types and house forms, which has emerged as the main obstacle to

Fig. 2—Sum graphs of radiocarbon dates for different types of sites.

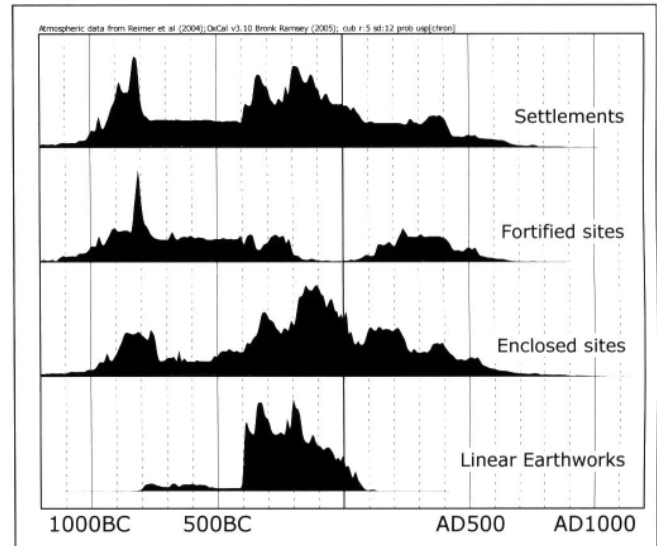
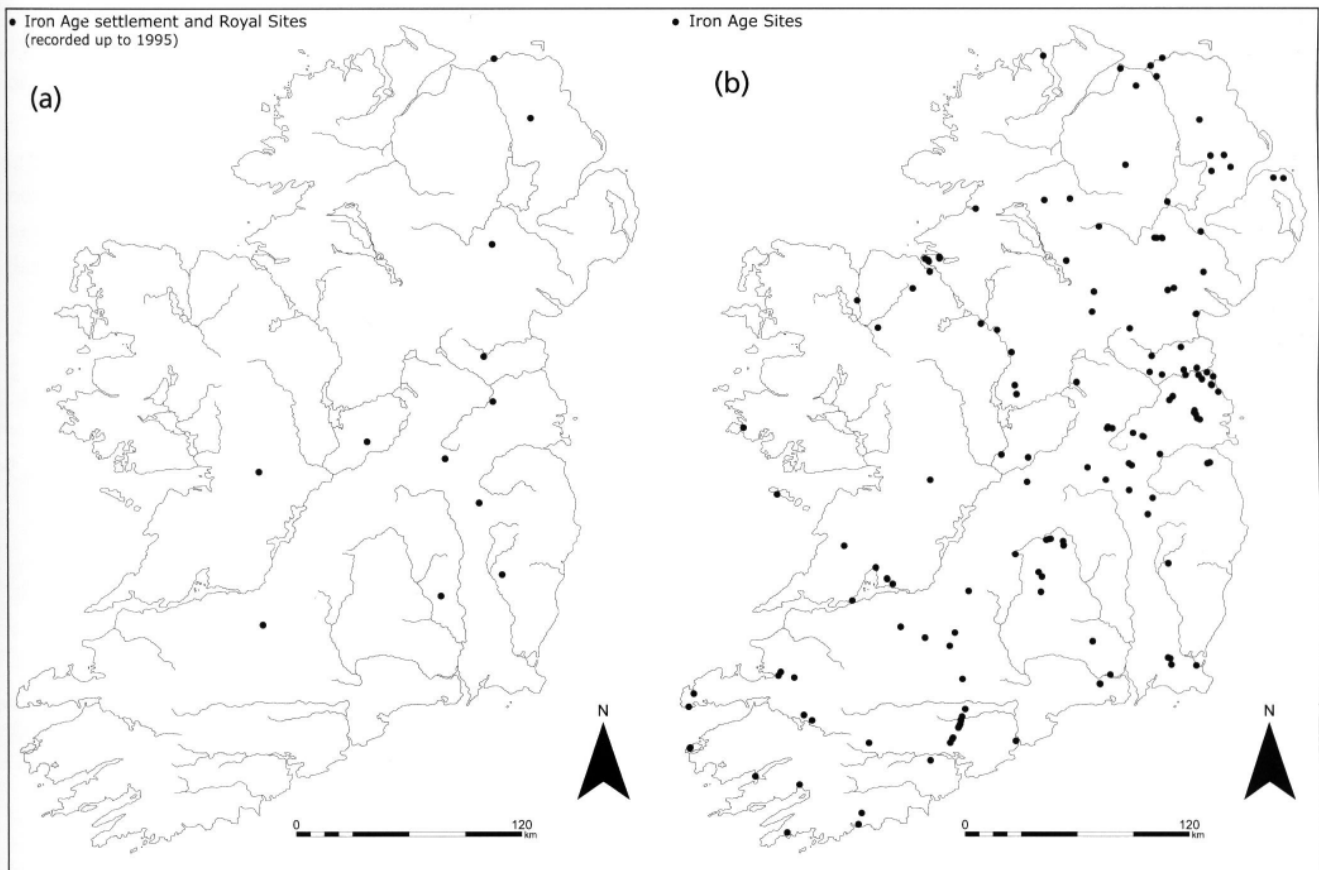


Fig. 3a—Distribution of Iron Age 'royal' sites and settlement (after Raftery 1983, map 23, and Raftery 1994).

Fig. 3b—Distribution of Iron Age sites excavated until 2004, with later additions.



the identification of Iron Age sites. The wide calibrated ranges of radiocarbon dates falling into the Hallstatt plateau have to be taken into account in the interpretation of the data.

The Iron Age structures identified to date have a round plan, in the long-standing local tradition of house-building in Ireland since the later Neolithic. In many cases the Iron Age evidence is in the form of individual features within scatters or clusters of features without stratigraphic associations, only datable through the application of radiocarbon or dendrochronology. Such sites in fact constitute the bulk of the evidence, and while in many cases Iron Age structures may have been obliterated by later activity, the evidence generally is not suggestive of any substantial long-term settlement (Becker, forthcoming a; Becker *et al.* 2008a; 2008b). Ironically, in spite of the identification of Iron Age settlement and houses, some explanations put forward in the past for the absolute lack of a settlement record may still apply to the new, improved data set. The scarcity of actual house structures may imply that society was rather mobile at the time, as was suggested on the basis of the apparent importance of horse gear in the artefact record (Raftery 1994, 113; cf. Armit 2007, 135). Perhaps not by coincidence, one of the largest bodies of evidence from the period is that of the bog trackways and roads of the midlands. These not only reflect significant use of these particular environments in the Iron Age but also imply a great concern with linking and connecting communities. Considering the almost ostentatious nature of sites such as Corlea (Raftery 1996), it would appear that the concern

with linkages and connectivity may go beyond the purely necessary.

It has been suggested elsewhere that climatic changes at the end of the late Bronze Age evidenced in the palaeoenvironmental record (e.g. Plunkett 2007, 232–3, fig. 12.2) may be the underlying reason for a potential focus on pastoral lifestyles in the period (Armit 2007, 134–5; Raftery 1994, 113). Such a scenario would also allow us to link the Irish pattern to what is observable in the earlier part of the Iron Age in Britain, where evidence for settlement is also scarce in some regions (e.g. Haselgrove and Pope 2007, 5–6; Haselgrove *et al.* 2001). This may find further support in Ireland in that a proportion of settlement sites (Fig. 4) were occupied in both the late Bronze Age and the early Iron Age, suggesting a degree of continuity between the periods. The majority of sites, however, seem to have been occupied for the first time in the Iron Age, indicating perhaps a significant shift in settlement patterns between both periods. Small-scale landscape studies of late Bronze Age and early Iron Age sites, integrating the environmental record, will help to understand the rationale behind the location of these sites in the landscape.

Chronology, regionality and cultural change

The new evidence not only solves the questions of where and how these people lived but also allows us to address some of the broader issues of the period. Until recently, the small

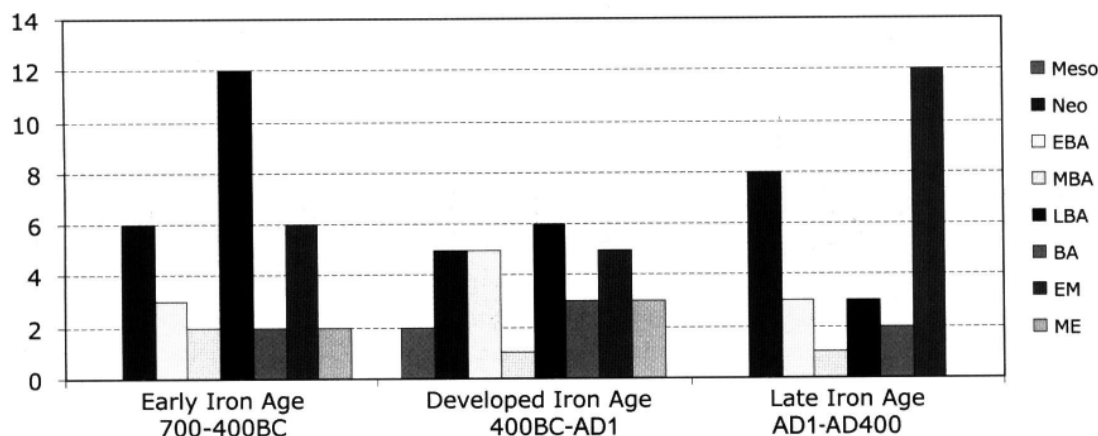


Fig. 4—Multiperiod sites through the Iron Age and their associated phases.

number of known Iron Age sites—in the majority belonging to the group of so-called ‘royal’ sites—and the metalwork of La Tène character (Raftery 1983; 1984) presented a number of problems, which were very much at the root of the ‘enigma of the Irish Iron Age’ (Raftery 1994).

The material that has been seen as representing the accoutrements of a high-status stratum within society has in the past given rise to much debate. As the almost exclusive representation of Iron Age life, their distribution within the country is strikingly uneven: La Tène metalwork is predominantly found in the north of the country, with striking gaps in the south, particularly Munster (Fig. 5a). This seems to stand in stark contrast to the large numbers of late Bronze Age artefacts in southern Ireland (cf. Fig. 5c for a comparison of Bronze Age and Iron Age gold, and Warner 1998, 27–9, for Bronze Age and Iron Age bronze artefacts). Some Iron Age artefact types adhere to this pattern more closely than others, with quernstones in particular reflecting such a regional divide most strikingly (Fig. 5b), although gold artefacts—most of them gold neck-ornaments—also clearly adhere to this pattern (Fig. 5c; cf. Becker, forthcoming b). Differences in the distribution of individual types of artefacts (cf. distribution maps in Raftery 1983 and 1984) may to some extent be due to the chronological depth of the material since, as has been pointed out in the past, the

lack of independent dating evidence means that in the case of the Irish La Tène material we are lumping together artefacts dating from a period of potentially 800 years (e.g. Raftery 1996, 473). In the past, the striking overall distributional bias has been discussed as perhaps reflecting extreme cultural differences between these two parts of the country. As predicted (e.g. Raftery 1984, 314–15; Woodman 1998, especially pp 16–18), the lack of finds from large parts of the country does not mean that these areas were not settled. This has been confirmed by the evidence for settlement in those parts of Ireland that were previously empty of artefact finds. Iron Age sites can be identified in the whole of Ireland (Fig. 3b; see also W. O’Brien, this volume; McLaughlin and Conran 2008). There are, however, still regions in which no sites have been identified. It remains to be seen to what extent these distribution patterns reflect that of recent infrastructural developments or are actually indicative of *bona fide* Iron Age regional patterns (Becker and Ó Néill, in prep.). The overall distribution of sites stands in striking contrast to the small number of excavated sites recorded until 1994 (see Fig. 3a, 3b) and provides a context for the extent of the Iron Age as previously defined by the distribution of the corpus of La Tène artefacts. While there are still gaps in the distribution map, it is clear that there is no south/north divide as represented in the artefact record.

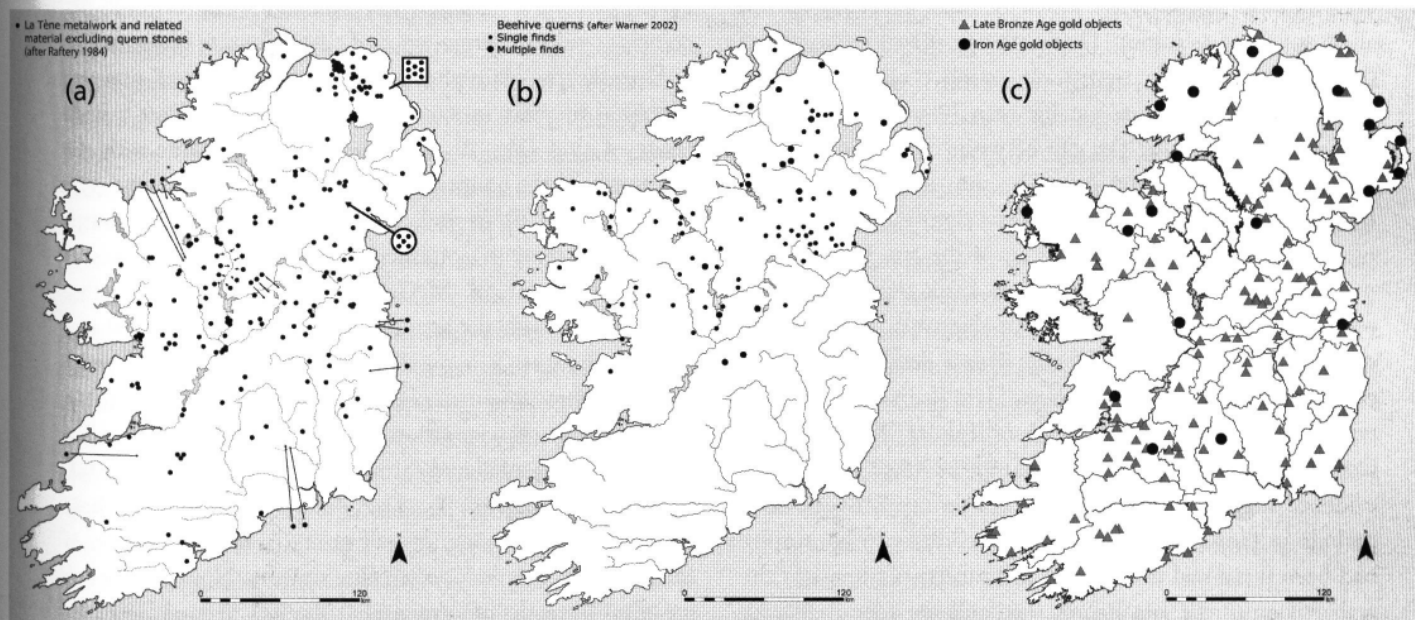


Fig. 5a—Distribution of Iron Age metalwork (after Raftery 1983, map 23, and Raftery 1994).

Fig. 5b—Distribution of Iron Age beehive quernstones (after Warner 2002).

Fig. 5c—Distribution of late Bronze Age and Iron Age gold objects.

While the origins, quality and associations of the radiocarbon dates in particular will represent one of the challenges in the analysis and interpretation of the new data, as a whole they already reveal some interesting trends and provide the basis for an attempt at a meaningful subdivision of the period. After the end of the late Bronze Age with its hillforts and the metalwork of the Dowris tradition (Eogan 1964; 1983), no sites or artefacts can be identified in a period of about 300–400 years until the onset of the La Tène metalworking tradition, which in the absence of Iron Age settlement traditionally constituted the main evidence for an Iron Age in Ireland. Thus, this central chronological guide—the typological development of artefacts—is for a large extent of the Iron Age irrelevant because non-existent or non-identifiable, and for the remainder not particularly typologically sensitive and compounded by the above-mentioned lack not only of settlement but also of burial associations. Nevertheless, significant breaks appear to take place around 700 BC with the end of the Dowris tradition, and later in the mid-third century BC with the appearance of metalwork of La Tène character in Ireland. The period in between corresponds to what has been referred to as the Dark Age of the Iron Age, roughly corresponding to the so-called Hallstatt plateau. Radiocarbon dates falling into this bracket would have wide ranges, and thus the extent of the early Iron Age was for the purpose of this study devised to accommodate these dates, which in most cases would not allow any finer definition. One of the most striking results of the project is that a significant number of sites can be assigned to the early Iron Age, between 700 and 400/300 BC (Fig. 1), thus bridging the gap between the end of the late Bronze Age and the Iron Age. The sites that were dated to the early Iron Age actually represent a significant proportion of the record, almost equal to that of the late Iron Age. In previous discussions, the so-called Dark Ages had been proposed as evidence either for an impoverishment of the country that went hand in hand with a demise of bronze-working or for the long currency of late Bronze Age artefact types with a cessation of hoard deposition (cf. Waddell 2000; Cooney and Grogan 1991; Champion 1989). The new evidence suggests some degree of continuity between both periods in terms of the settlement record. Such continuity had been presumed in the past, and similarities between the archaeology of the late Bronze Age and the identifiable La Tène Iron Age had been pointed out (e.g. Cooney and Grogan 1991, 36–8); indeed, some degree of continuity with the late Bronze Age is suggested on the basis of house forms.

As pointed out elsewhere (e.g. Raftery 1998a, 471), however, continuity in some aspects of the record does not mean that there was overall cultural continuity, reminding us that archaeological methodologies are often insufficient to grasp fundamental cultural aspects which do not necessarily manifest themselves physically. The increasing evidence for an early start of iron-working in Ireland and the early ending of the late Bronze Age metalworking traditions (Becker, *in press*; Becker and Warner, *in prep.*; cf. also Raftery, *forthcoming*) implies that some significant changes took place in this period. Hence, this stage is probably best regarded as a transitional one, comparable in its archaeological manifestation to the British situation, where in many regions scarce settlement evidence is twinned with an extremely scarce metalwork record in the Llyn Fawr phase (O'Connor 2007; Needham 2007).

The most profound change, encompassing a variety of different aspects of the archaeological record, can be observed between the early and the developed Iron Age (400/300 BC–1 BC), while the cut-off point around the birth of Christ was chosen as a completely artificial subdivision of the remaining 800 years until the beginning of the early medieval period, even if somewhat informed by the knowledge of broad cultural changes elsewhere and increased contact with the provincial Roman world in the century before and after the birth of Christ. The onset of a period with better radiocarbon dates at around 400/300 BC coincides with the emergence of particular site types such as earthworks, the main phases of activity at the 'royal' sites and a general increase in site numbers, traceable across a wide range of sites (Fig. 2). This broadly corresponds with the beginning of the adoption of the Continental La Tène style (late La Tène B) in Ireland, probably late in the fourth century BC and in conjunction with the re-emergence of formalised burial (cf. McGarry 2007, 8–9), and there are sufficient grounds for assuming quite significant social and cultural changes. It is possible that the source of this was a general improvement of climatic conditions, going hand in hand with a reinvigoration of contacts with the outside world, possibly mediated through a newly emerging élite (cf. Becker, *forthcoming b*). The question is whether these changes affected society overall or are in fact a reflection of the presence/emergence of an élite stratum. Now that we can see the breadth of the archaeological record and the specialised role that the La Tène metalwork plays in it, a revisitation of the question of cultural change in this period becomes necessary and possible, moving beyond old

interpretations that saw the La Tène material as evidence for a 'Celticisation' of the country. Barry was always highly critical of such interpretations of the record (e.g. Raftery 1991; 1994; 2006; also see Champion 1982; Waddell 1995; Cooney and Grogan 1991; 1999). He recognised that the La Tène material is not representative of the general population of the Irish Iron Age, but suggested that 'rather it must be regarded as part and parcel of a small, élite element, accompanied by specialist craftsmen' (Raftery 1998b, 22). Hence he hesitated in considering the La Tène material as defining the culture of the Irish Iron Age, particularly seeing the implications of this in ethnic or linguistic terms (1994, 222).

The distinct local flavour of the La Tène-style material in Ireland has been highlighted (e.g. Raftery 1984, 319–35, particularly p. 335; 2006, 277) and can be understood as the deliberate utilisation of exotic and luxurious material culture by a particular group within society. If we understand the La Tène material not only as the rare 'trappings of an élite and exclusive stratum' with an odd distribution but also as a reflection of quite deliberate, regionally distinct expressions of identity through this particular style of metalwork and its deposition (Becker, forthcoming b; cf. also Warner 2002 and Hunter 2007), the need to explain it in terms of cultural change or even in ethnic terms becomes obsolete. Phenomena such as the metalwork, the quernstones and the burial record in juxtaposition with the settlement record can be revealed to be regional practices, complementing the representation of group identities on a regional scale through the construction of 'royal' sites (Armit 2007, 134–5). The same can be argued to be the case for the burial record, which, rather than an imperfect representation, may be read as the expression of regional identities in mortuary practices comparable to that observable in Britain. While in the case of both the settlement record and the burial record we have to presume that our data set is far from comprehensive, gaps in the current distribution of sites can nevertheless be positively identified as representing prehistoric realities (Becker and Ó Néill, in prep.). Hence the gaps and the visible phenomena, the links and contrasts between the different strands of the archaeological record of the Irish Iron Age, have started to reveal a more complex picture of the period. Examining these patterns on a regional as well as supra-regional level, augmented and added to by the integration of the environmental data, will allow us to gain a fuller understanding of the material of the period. The different strands of evidence for Iron Age life are starting to

come together, and while the Iron Age people are perhaps not fully visible as yet, we are beginning to gain a better understanding of how to go about finding them.

Acknowledgements

This paper is partly based on the results of the first phase of the research project 'IRON AGE IRELAND: Finding an invisible people', funded by the Heritage Council in 2008. I would particularly like to thank John Ó Néill for his contribution to the project, Conor McDermott for his invaluable help in preparing the illustrations for this and other papers, and Gabriel Cooney, Aidan O'Sullivan, Steve Davis and Tiernan McGarry for comments. This project was conceived of with Barry's support and encouragement, from which I have been privileged to benefit on so many occasions. This paper is offered to Barry as an expression of my deeply felt gratitude and affection.

References

- Armit, I. 2007 Social landscapes and identities in the Irish Iron Age. In C. Haselgrove and T. Moore (eds), *The later Iron Age in Britain and beyond*, 130–9. Oxford. Oxbow.
- Becker, K. (in press) The introduction of ironworking to Ireland. In J. Koch *et al.* (eds), *Technikentwicklung und -transfer. Beiträge zur Ur- und Frühgeschichte Mitteleuropas*. Langenweißbach. Beier & Beran.
- Becker, K. (forthcoming a) But I still haven't found what I'm looking for. New agendas in Irish Iron Age research. In R. Karl and J. Leskovar (eds), *Proceedings of the 2008 conference Interpretierte Eisenzeiten*. Linz.
- Becker, K. (forthcoming b) The Irish Iron Age: continuity, change and identity. In T. Moore and X. Armada (eds), *Atlantic Europe in the first millennium BC*. Oxford University Press.
- Becker, K. and Ó Néill, J. (in prep.) *Mapping the Irish Iron Age*.
- Becker, K. and Warner, R. (in prep.) *From Bronze to Iron, dating the transition*.
- Becker, K., Ó Néill, J. and O'Flynn, L. 2008a Iron Age Ireland: finding an invisible people. *Archaeology Ireland* 22 (2), 3.
- Becker, K., Ó Néill, J. and O'Flynn, L. 2008b *IRON AGE*

- IRELAND: Finding an invisible people*. Project report to the Heritage Council (http://www.ucd.ie/t4cms/iron_age_ireland_project_16365_pilotweb.pdf).
- Bourke, L. 2001 *Crossing the Rubicon: Bronze Age metalwork from Irish rivers*. Bronze Age Studies 5. Department of Archaeology, NUI Galway.
- Caulfield, S. 1977 The beehive quern in Ireland. *Journal of the Royal Society of Antiquaries of Ireland* 107, 104–38.
- Champion, T. 1982 The myth of Iron Age invasions in Ireland. In B. G. Scott (ed.), *Studies on early Ireland. Essays in honour of M. V. Duignan*, 51–73. Belfast. Association of Young Irish Archaeologists.
- Champion, T. 1989 From bronze to iron in Ireland. In M. L. S. Sorenson and R. Thomas (eds), *The Bronze Age–Iron Age transition in Europe*, 287–303. British Archaeological Reports, International Series 483.2. Oxford.
- Cooney, G. and Grogan, E. 1991 An archaeological solution to the Irish problem? *Emania* 9, 33–43.
- Cooney, G. and Grogan, E. 1999 *Irish prehistory. A social perspective*. Bray. Wordwell.
- Cross May, S., Murray, C., Ó Néill, J. and Stevens, P. 2005b Catalogue of dryland sites. In M. Gowen, M. Phillips and J. Ó Néill (eds), *The Lisheen Mine Archaeological Project 1996–8*, 283–310. Bray. Wordwell.
- Eogan, G. 1964 The Later Bronze Age in Ireland in the light of recent research. *Proceedings of the Prehistoric Society* 30, 268–351.
- Eogan, G. 1983 *The hoards of the Irish Later Bronze Age*. University College Dublin.
- Fenwick, J., Geraghty, L., Waddell, J. and Barton, K. 2006 The innermost secrets of Rathcroghan Mound *Archaeology Ireland* 20 (2), 26–9.
- Fredengren, C. 2002 *Crannogs: a study of people's interaction with lakes, with particular reference to Lough Gara in the north-west of Ireland*. Bray. Wordwell.
- Grogan, E. 2005 *The North Munster Project*, vol. 1. Discovery Programme Monograph 6. Dublin. Wordwell.
- Haselgrove, C. and Pope, R. 2007 Characterising the earlier Iron Age. In C. Haselgrove and R. Pope (eds), *The earlier Iron Age in Britain and the near Continent*, 1–23. Oxford. Oxbow.
- Haselgrove, C., Armit, I., Champion, T., Creighton, J. and Gwilt, A. 2001 *Understanding the British Iron Age: an agenda for action*. Salisbury. Prehistoric Society/Wessex Archaeology.
- Hunter, F. 2007 Artefacts, regions, and identities in the northern British Iron Age. In C. Haselgrove and T. Moore (eds), *The later Iron Age in Britain and beyond*, 286–96. Oxford. Oxbow.
- Johnston, S.A. and Wailes, B. 2007 *Dún Ailinne. Excavations at an Irish royal site, 1968–1975*. University Museum Monograph 129. University of Pennsylvania Museum of Archaeology and Anthropology.
- Lynn, C.J. 1989 An interpretation of the 'Dorsey'. *Emania* 6, 5–10.
- McGarry, T. 2005 Identifying burials of the Irish Iron Age and transitional periods. *Trowel* 10, 2–18.
- McGarry, T. 2007 Irish late prehistoric burial practices: continuity, developments and influences. *Trowel* 11, 1–25.
- McLaughlin, M. and Conran, S. 2008 The emerging Iron Age of Munster. *Seanda* 3, 51–3.
- Mallory, J.P. 1995 Haughey's Fort and the Navan Complex in the Late Bronze Age. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age*, 73–86. Dublin. Stationery Office.
- Mallory, J.P. and Warner, R.B. 1988 The date of Haughey's Fort. *Emania* 5, 36–40.
- Molloy, B. (forthcoming) Marlhill. In M. Gowen *et al.*, *The archaeology of the N8*.
- Needham, S.P. 2007 800 BC, the great divide. In C. Haselgrove and R. Pope (eds), *The earlier Iron Age in Britain and the near Continent*, 39–43. Oxford. Oxbow.
- Newman, C. 2005 Re-composing the archaeological landscape of Tara. In E. Bhreathnach (ed.), *The kingship and landscape of Tara*, 361–409. Dublin. Four Courts Press.
- O'Connor, B. 2007 Llyn Fawr metalwork in Britain: a review. In C. Haselgrove and R. Pope (eds), *The earlier Iron Age in Britain and the near Continent*, 64–79. Oxford. Oxbow.
- O'Sullivan, A. 1998 *The archaeology of lake settlement in Ireland*. Dublin. Royal Irish Academy.
- Plunkett, G. 2007 Pollen analysis and archaeology in Ireland. In E. M. Murphy and N. J. Whitehouse (eds), *Environmental archaeology in Ireland*, 221–40. Oxford. Oxbow.
- Raftery, B. 1976a Rathgall and Irish hillfort problems. In D. W. Harding (ed.), *Hillforts. Later prehistoric earthworks in Britain and Ireland*, 339–57. London. Academic Press.
- Raftery, B. 1976b Dowris, Hallstatt and La Tène in Ireland:

- problems of the transition from bronze to iron. In S. J. De Laet (ed.), *Acculturation and continuity in Atlantic Europe, mainly during the Neolithic period and the Bronze Age*, 189–97. Brügge. Ghent.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland. Problems of origin and chronology*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1987 *La Tène art in Ireland*. In M. Ryan (ed.), *Ireland and Insular art, AD 500–1200: proceedings of a conference at University College Cork, 31 October–3 November 1985*, 12–18. Dublin. Royal Irish Academy.
- Raftery, B. 1991 The Celtic Iron Age in Ireland: problems of origin. *Emania* 9, 28–32.
- Raftery, B. 1994 *Pagan Celtic Ireland. The enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 1995a Pre- and protohistoric Ireland: problems of continuity and change. *Emania* 13, 5–9.
- Raftery, B. 1995b The conundrum of Irish Iron Age pottery. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age. Essays on fieldwork and museum research presented to Ian Mathieson Stead*, 149–56. Oxford. Oxbow.
- Raftery, B. 1996 *Trackway excavations in the Mountdillon Bogs, Co. Longford*. Irish Archaeological Wetland Unit Transactions 3. Dublin. Crannóg Publications.
- Raftery, B. 1998a Kelten und Keltizismus in Irland: Die archäologischen Belege. In A. Müller-Karpe, H. Brandt, H. Jöns, D. Krauß and A. Wigg (eds), *Studien zur Archäologie der Kelten, Römer und Germanen in Mittel- und Westeuropa. Alfred Haffner zum 60. Geburtstag*, 465–75. Rahden/Westfalen. Verlag Marie Leidorf GmbH.
- Raftery, B. 1998b Observations on the Iron Age in Munster. *Emania* 17, 21–4.
- Raftery, B. 2006 Celtic Ireland: problems of language, history and archaeology. *Acta Archaeologica Academiae Scientiarum Hungaricae* 57, 273–9.
- Raftery, B. (forthcoming) The reliability of the alleged early Lough Gara iron. In L. Webster and A. Reynolds (eds), *Essays in honour of James Graham-Campbell*.
- Roche, H. 2002 *Excavations at Ráith na Ríg, Tara, Co. Meath*. Discovery Programme Reports 6. Bray. Wordwell.
- Waddell, J. 1995 Celts, Celticisation and the Irish Bronze Age. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age*, 158–69. Dublin. Stationery Office.
- Waddell, J. 2000 *The prehistoric archaeology of Ireland*. Bray. Wordwell.
- Walsh, A. 1987 Excavating the Black Pig's Dyke. *Emania* 7, 10–21.
- Warner, R.B. 1998 Is there an Iron Age in Munster? *Emania* 17, 25–9.
- Warner, R.B. 2002 Beehive querns and Irish 'La Tène' artefacts: a statistical test of their cultural relatedness. *Journal of Irish Archaeology* 11, 125–30.
- Waterman, D.M. 1997 *Excavations at Navan Fort 1961–71* (ed. C. J. Lynn). Northern Ireland Archaeological Monographs 3. Belfast. The Stationery Office.
- Woodman, P.C. 1998 The Early Iron Age of South Munster—not so different after all. *Emania* 17, 13–19.

Decorating the dominant: some evidence from the rock carvings of southern Scandinavia

John Coles

One of the joys of knowing Barry Raftery for many years has been his constant interest in and curiosity about all things archaeological, and lots of other things too. This paper will, I hope, show Barry that even well-observed and often-studied archaeological material can sometimes yield new bits of information if it becomes the target of particular questions.

Introduction

The rock carvings of southern Scandinavia are widely known and appreciated as revealing much about the north European Bronze Age that otherwise is less evident in the archaeological record, and to some extent wholly absent from that record. My work on the rock carvings of the north has been mostly concerned with sites and landscapes (Coles 2000; 2005) rather than individual images, but during many tours of southern Sweden, south and west Norway and Denmark I have had the opportunity to view and record a multitude of images of the human form in different poses, and yet exhibiting overall a prescribed set of attitudes. Several of the major concepts are well known, including the representation of humans as either sexless (a vast majority) or prominently male, and for the latter an emphasis and exaggeration of the calves of the legs. Such figures as these are sometimes shown as bearing or brandishing weapons, axes or spears in the main, and a recurring feature is the wearing of sword scabbards, although swords themselves are very rarely shown.

What is less often commented upon is the shape and character of the human body itself, the representation of clothing or armour, and the possibility of identifying body decoration and ornamentation. The multitude of small images of humans have rather amorphous rounded bodies, somewhat squarish but with rounded edges and, in effect, featureless and undiagnostic. Many of the weapon-bearers, in contrast, have distinctly square or rectangular bodies, with sharp edges and corners, and the shape is often terminated at waist level by a thin, uncarved line separating the upper body from the legs (Fig. 1). These squarish upper bodies are almost always carefully carved with firm and distinct edges.

It is possible, perhaps probable, that such representations indicate some form of tailored tunic, although there is little trace of neckline or collar. On some sites the square or rectangular shape is extended downwards to cover much of the legs of the humans, and here there should be little doubt that we have the representation of a long, rather tight-fitting cloak or tunic (e.g. Coles 2005, fig. 209). A wider view of the possibilities for clothed humans of the Bronze Age can be

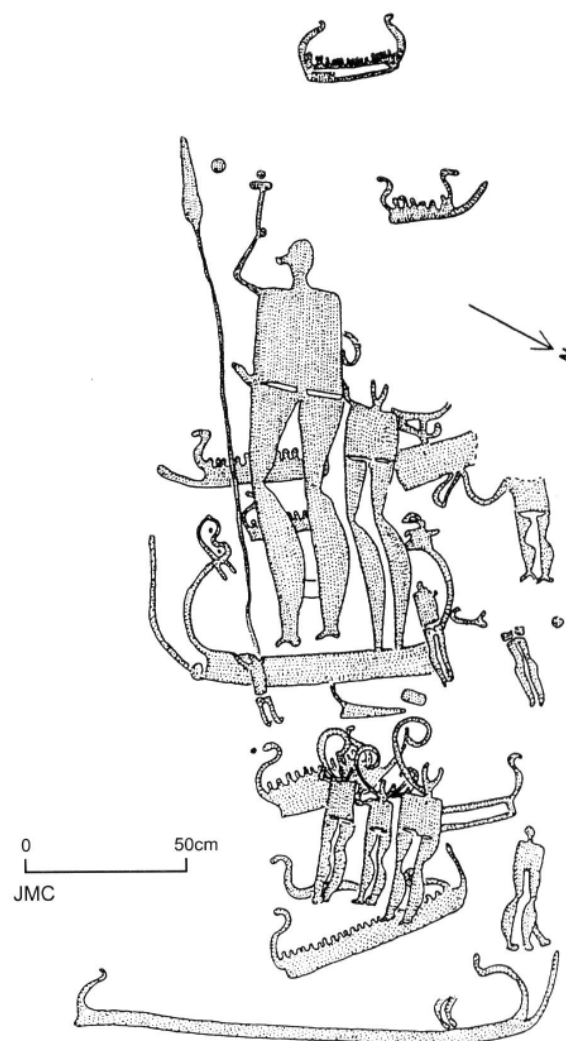


Fig. 1—Square-bodied figures from Kalleby, Bohuslän (Coles 2005).

gained, of course, from the range and variety of materials, organic and inorganic, in the tree-trunk coffins of Bronze Age Denmark, and many other burials from wide areas of southern Scandinavia (Glob 1974). The technical and reconstructive figures in numerous books (e.g. Jensen 1979) demonstrate the character of the tunics, skirts, cloaks and ornaments that were in use at the time of the carving of many images on the rocks of the north. And we should not forget the strikingly unusual bronze figures from Danish Grevensvaenge and Fårdal, with horn-helmets or short skirts or acrobatic pose (Glob 1974, fig. 57, 64, 67), as suggestive guides to our viewing of the carved images on the rocks. Armed with such possibilities for closer identification of pieces of dress or ornamentation, the carvings may well benefit from a more detailed examination than has so far been given to them, and this paper can only begin to suggest one or two of the possibilities, after a glance at some general characteristics of the carved images of Bronze Age bodies.

Carved images of Bronze Age bodies

The arms of human images are often wholly absent, or sometimes merely indicated as thin and featureless carved lines. Many of the more prominent humans, weapon-bearing, often with squared bodies, are shown as adorants, with strong arms extended out from the bodies, bent at the elbows, forearms raised and fingers often depicted. Sometimes such figures have one arm up, the other down (Fig. 2). The fingers on larger and more detailed figures are often carved out as five short lines, well spread apart, but sometimes only three are indicated, less often four and rarely only two, and the problems of separating the finger lines upon a very hard rock are obvious. The hands overall are often quite large, and here and there is some slight thickening of the wrists as if, perhaps, some indication of bracelets or armlets was deliberate, but so far as I am aware there are no unambiguous depictions of such items.

A particularly notable feature on almost all images of the human body is the slender treatment of feet. These generally lack any real emphasis; they are often small and have little detail of toes, heels or insteps. Some images have more detail than this, but shoes or other protection are not often clearly indicated, although here and there appear more well-defined shapes, particularly thickened heels and concave insteps. There are, however, many rock-carving sites where isolated feet, singles or pairs, are depicted, and these may be unshod,

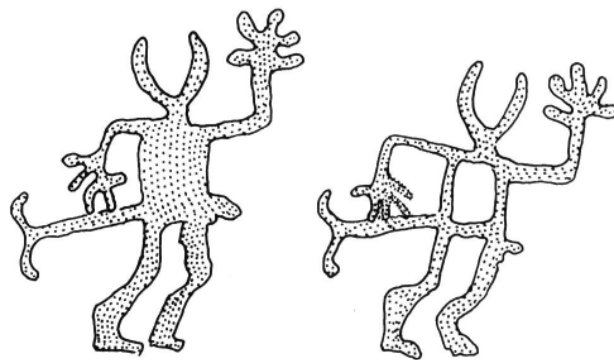


Fig. 2—Horned figures with sword scabbards and five-fingered hands from Bottna, Bohuslän. The figure on the left is 320mm tall (Coles 2005).

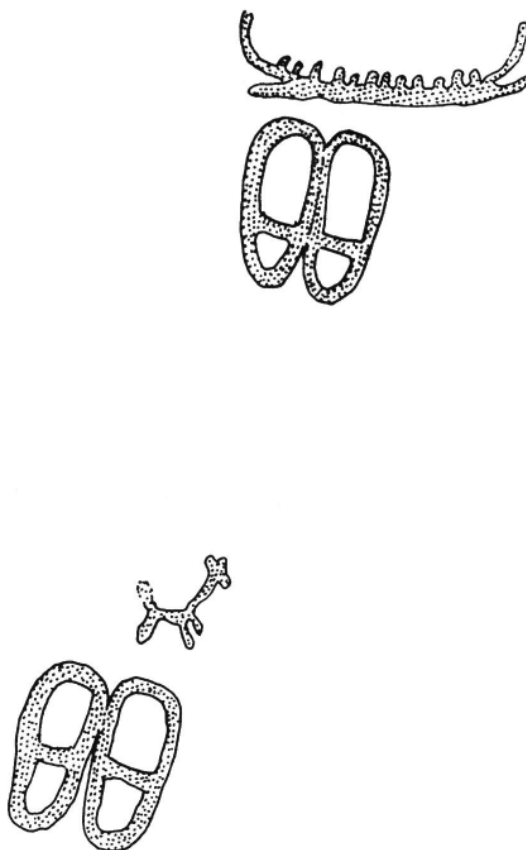


Fig. 3—Footsoles on a sloping rock face at Bottna, Bohuslän. These feet are pointing upslope. The upper left image is 250mm long (Coles 2005).

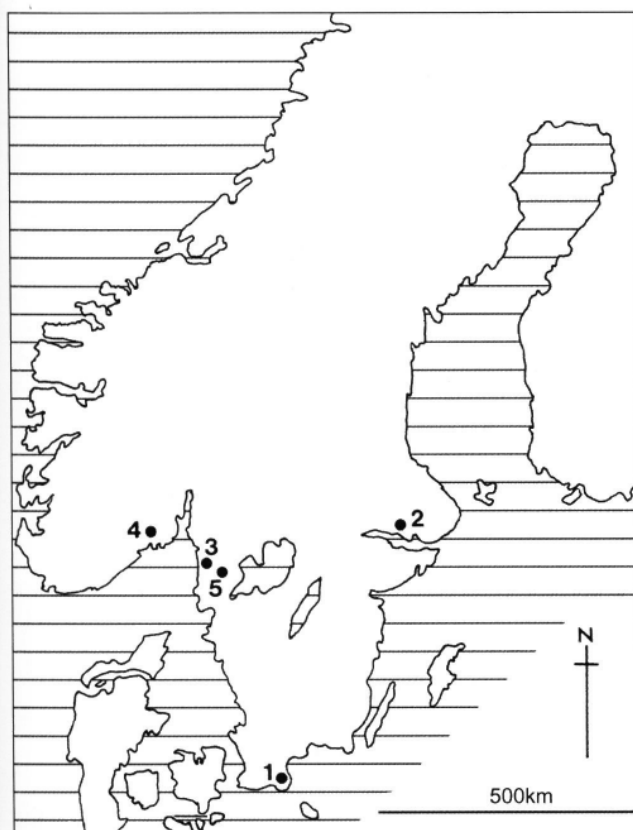


Fig. 4—Southern Scandinavia with site areas marked. 1, Järrestad, Skåne. 2, Rikeby and Brandskog, Uppland. 3, Hede, Litsleby, Backa and other Bohuslän sites. 4, Hoppestad, Telemark. 5, Evenstorp, Dalsland.

with toes shown, or shown as if wearing sandals or other flat footwear (Fig. 3). Groups or rows of these 'footsoles' are often seen on the rocks, almost always facing downslope, as if the owner was watching the shoreline or other landscape feature at or near the base of the rock.

At the other end of the body, the head, we can see a distinct lack of interest in any identification of individual human features. Heads are often merely round blobs, stuck on a narrow neck, but there are some exceptions to this: notable among these are the horns or projections from the heads of humans often bearing weapons, with squared bodies and strong legs (Figs 1 and 2). The horns are usually interpreted as helmets, along the lines of the bronze helmets from Vikso in Denmark (Broholm 1953, fig. 104). Some of these horned images are large and prominently positioned on major rock-carving sites, but they also occur on smaller sites, sometimes in more complex relationships, such as the so-called 'spring weddings' (Coles 2005, 35, fig. 54; Pröhl and Milstreu 1982). Other human images have some form

of decorative or prominent head-dresses, such as the pointed caps on the small procession at Åby in Tossene parish, Bohuslän (Coles 2003, fig. 13), but in the main the human head is basically a simple round, lacking embellishment, unseeing, anonymous and without individuality. This is in some contrast to the facial features carved upon some wooden figures of the Bronze Age and Iron Age in north-western Europe (Coles 1990; van den Sanden and Capelle 2001). From Ireland, the Ralaghan figure has a pair of eyes, a nose and mouth, while the Lagore figure's face is entirely devoid of any features.

In the overall territory of the south Scandinavian rock-carving tradition, which stretches from the Trøndelag and Rogaland in the north and west to Uppland, Blekinge and Bornholm in the east and south, there are only a few images of humans that stand out from the normal range by virtue of size and body shape and, above all, by a more detailed and deliberate representation of the head. All of these appear to date from the centuries from about 1100 to 500 BC, that is, to the later Bronze Age of the north, and in this paper I refer only to a small assortment from southern Sweden and south-east Norway, where opportunities have recently arisen to examine numerous carvings (Fig. 4); it may well be that, here and there, comparable human images occur on the rocks of other regions of Bronze Age tradition, but the literature, and my several extensive visits in the past, have not identified equivalent examples to those described here.

Representations of the head

A well-known figure from the huge rock-carving site of Järrestad in southern Skåne is often referred to as 'the Dancer' because of the sinuous legs and artistically expressive posture, arms carved and hands in offertory pose (Fig. 5; Coles 1999). The head of the figure is strangely subdued and flat-topped, but close examination of the surface of the quartzite rock suggests the presence of a fan-like extension from the head crown, and this might have been a part of the image before erosion here, and also immediately above, diminished the design. The Dancer is set low on the great rock and is therefore a very obvious image to the viewer who stood at the base of the rock, from where almost all the carvings appear in correct position. There is a contrast here with an equally large figure from Lökeberg in Foss parish, Bohuslän, which is set high on the carved surface of a steeply sloping rock but is otherwise notable only by its size, and has



Fig. 5—'The Dancer' at Järrestad, Skåne. The plume-like projections on the head are very faint, but less so than an image of a horseman only recently recognised immediately above the hand (shown here only as a curved line) (Coles 1999).

few other attributes and a small unadorned head (Coles 2005, fig. 90). In sharp contrast to this figure is the equally large human image at Kasen Lövåsen in Tanum parish, Bohuslän, carved near the top of a sloping granite rock and wholly dominating the smaller images beside and below (Fig. 6; Coles 2006, fig. 9). The figure is exaggeratedly male, with sword scabbard, strong legs and beaked head, which bears two curved plumes, and the whole is an extraordinary image that can bear little relationship to any possible human model; the head-dress, if that is what it is, must surely have been an extravagant ceremonial article.

In Uppland, well to the east of Bohuslän and to the north of Skåne, there is an abundance of rock carvings on

gneiss and mica schist rocks, and a small number of sites have large images of humans (Coles 2000, 48–56). Only a few of these are sufficiently detailed to warrant attention here, but one in particular, recorded anew in 2008 for this paper, is particularly interesting. One of the many rock-carvings sites at Rickeby in Boglösa parish contains a large human figure, carved with thin lines and with a detailed head set upon a narrow neck (Fig. 7A; Coles 2000, pl. 71). The neck extends from a squared body that merges below onto two short and triangular legs. From the neckline there extends out, on each side, a curved line that descends to meet the juncture of legs and body; this line might represent arms, or perhaps it indicates a cloak, such as appear as isolated,

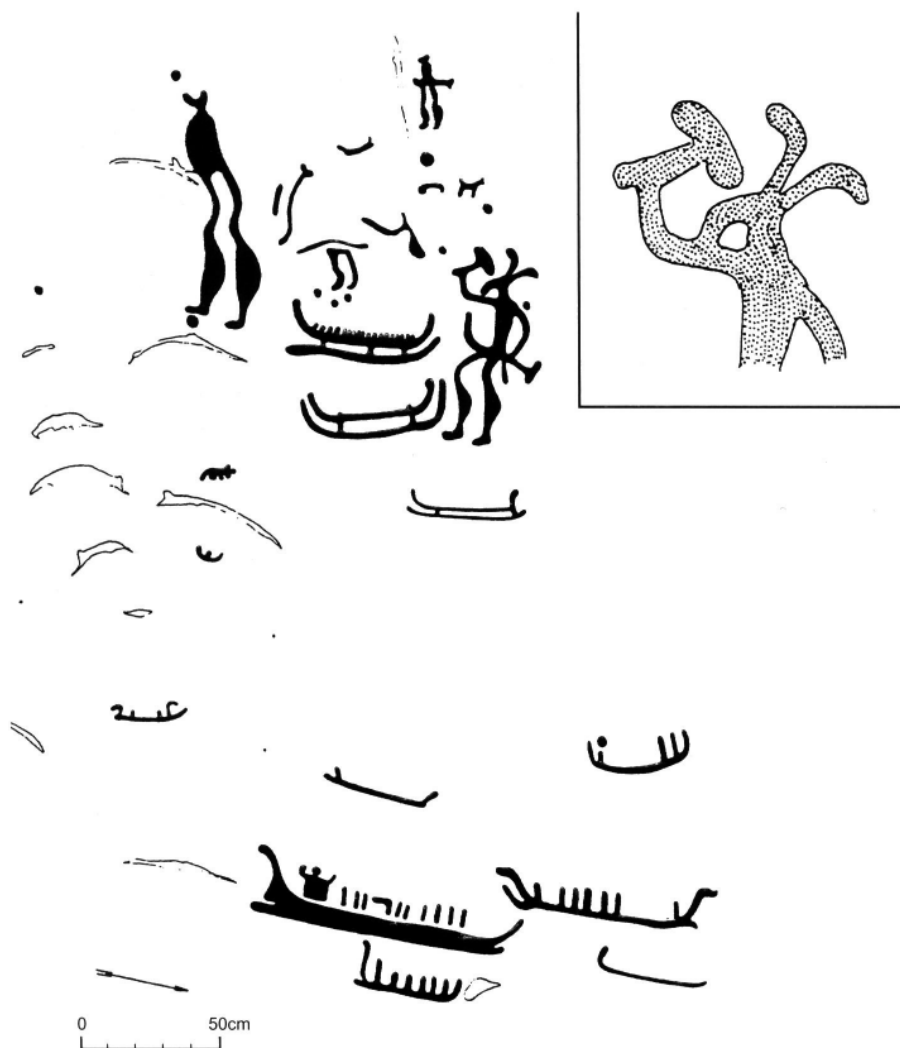


Fig. 6—Dominant figure at Kasen Lövasen, Bohuslän. The image as revealed by a rubbing differs in certain degrees from the published plan (Coles 2006).

unattached, images upon the rocks in the immediate area of the Rikeby site. A new recording made for this paper suggests that the head of the figure has two eyes and a possible mouth line, and three short projections from the top of the head, one at the centre and one at each side (Fig. 7A); the surface of the rock is uneven and pitted, and these features may be a combination of natural, eroded and deliberately worked lines.

Equally striking are the six large, robed humans paddling an elaborately stemmed boat at Brandskog, near Rikeby (Coles 2000, pl. 73, fig. 37). The six are broadly similar in character, and we see only their upper bodies as they are standing in the boat, legs hidden by the gunwale (Fig. 7B).

With curved and waisted bodies, arched backs, thin arms and rounded but shaped heads in profile, they are more dynamic than the majority of human images in the region, who are static and inactive. They are fully robed, it seems, but are not as sinuous as the well-known figures from the Kivik cairn in Skåne (Randsborg 1993). The heads of the Brandskog paddlers are varied, several with gaps in the head lines for eyes, one with a mouth slit and one with a gaping mouth; all are carved in such a way as to be both anonymous and mysterious to the viewer, who must stand on the sloping rock face and gaze at the huge figures and their enormous boat. There is no elevated or distant viewpoint, and the entire image is almost invisible from the base of the rock surface.

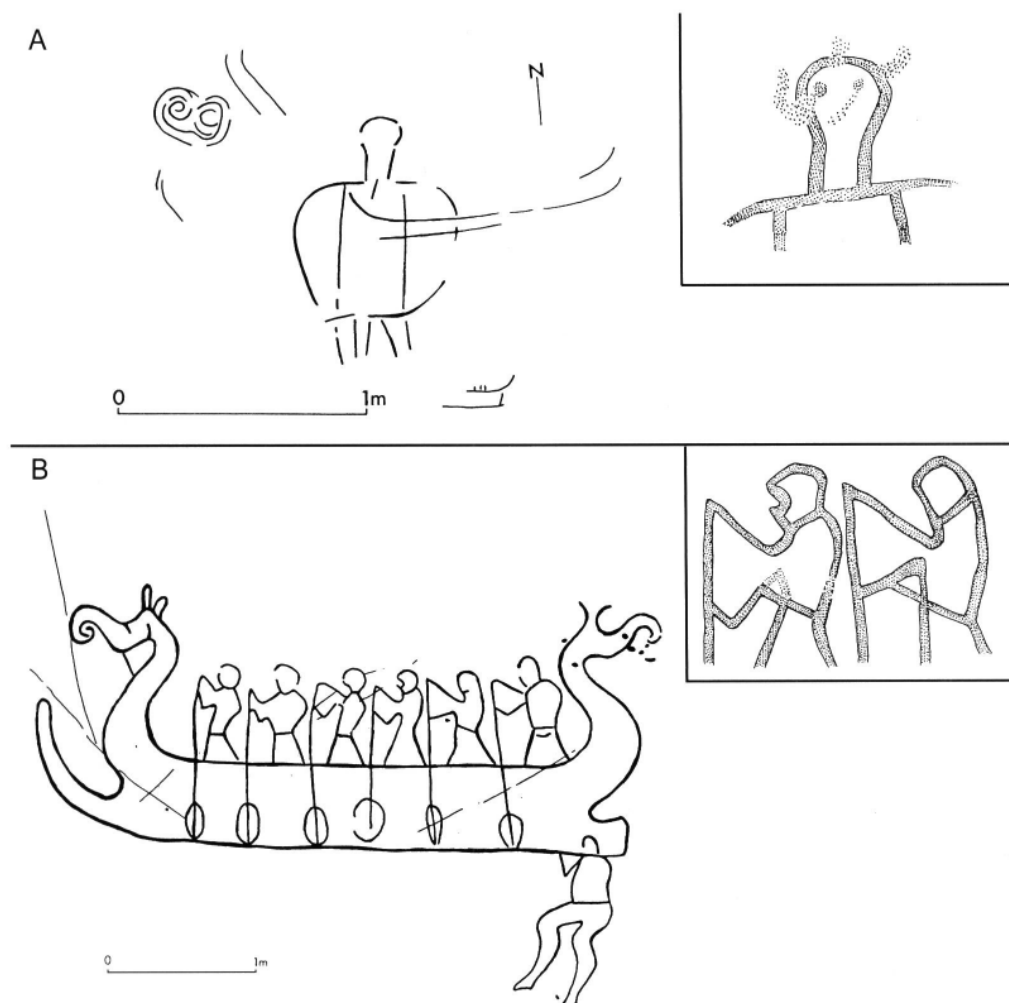


Fig. 7—(A) Part of the carvings at a Rickeby, Uppland, site with a large outlined image of a human. The head detail may include a pair of eyes (Coles 2000). (B) The enormous boat carving at Brandskog, Uppland, with revised detail of two of the paddlers (fourth and fifth from the fore stem) (Coles 2000).

In contrast to these Uppland images, and in effect to almost all other carvings of the human form from southern Scandinavia, are six carvings with special emphasis on or around the heads that mark their own individuality. Four of these have also been recorded anew in 2008. The first is a human image from the small site of Hede in Kville parish, Bohuslän (Fig. 8A; Coles 2005, fig. 38). The rock once carried, at its base, the image of a large boat (damaged by fire at some time in the distant past), above which was carved an acrobat, leaping or stretching over the gunwale, and with a shield-bearing and scabbard-wearing human near the fore stem. Behind the boat is a large human image, with widened calves, angular upper body, arms in adorant pose with five fingers on each hand, and an extraordinarily large head. The

head is disc-like, carved deeply around its edge, and lacks any clear facial features, but inside the disc the surface has been worked by hammering to form an inner circular central area with a small deepening at the centre of the head; it is as if the location of facial features were to be indicated but not defined more precisely, or, if once present, were removed. Beneath the head and beside the neck are two small but distinct cup-marks, which may well indicate pendant earrings of types well known from the goldwork of the period. The upper body of the figure is defined by deeply carved lines with the inner surface more shallowly carved, and within this area there seem to be three small markings, as if fastenings or hangings were worn (Fig. 8A); these are very shallow and have not been detected or acknowledged

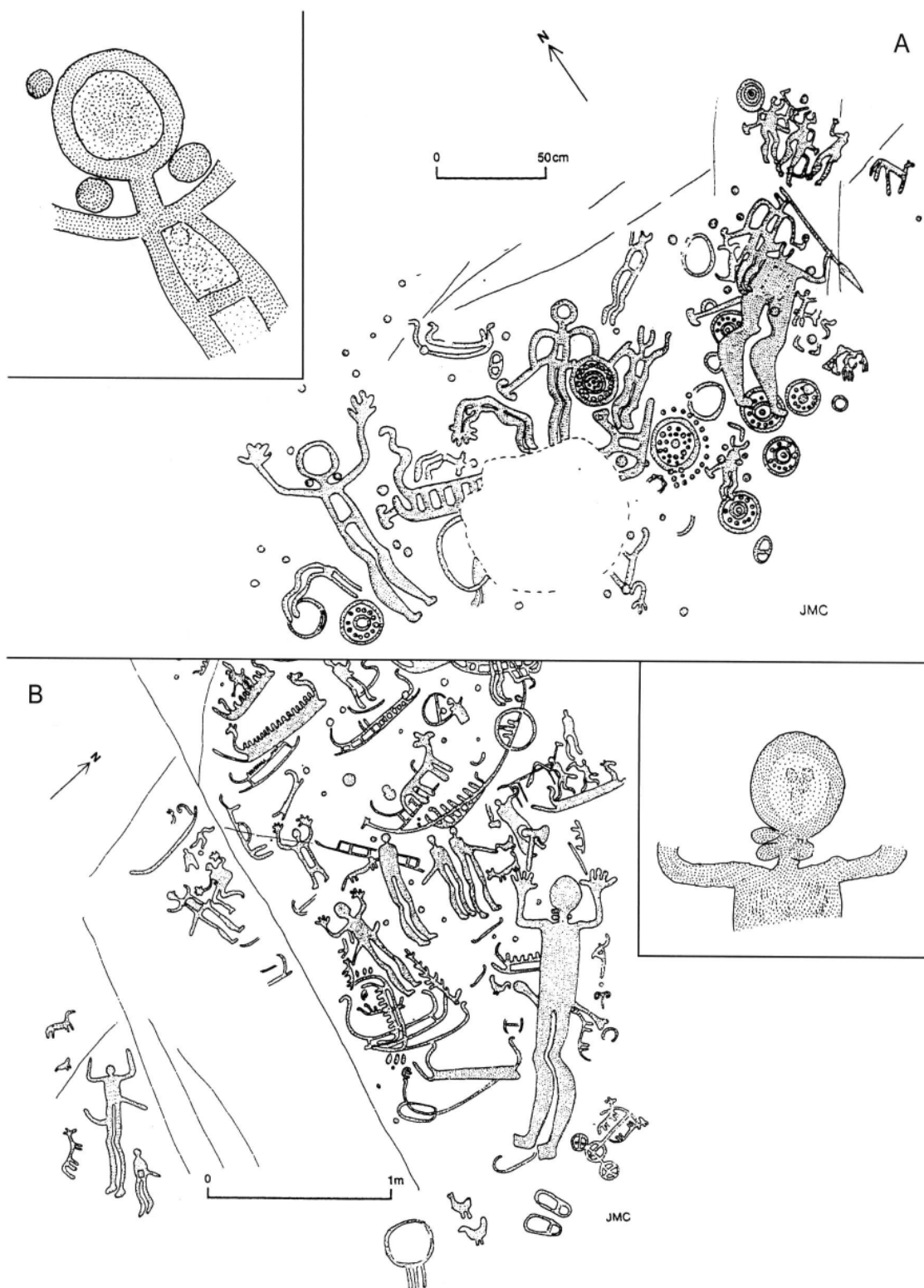


Fig. 8—(A) Central body and head of the major human image at Hede, Bohuslän, with cup-marks below the head and traces of markings on the upper body. The central part of the head disc has been carved more deeply than its immediate periphery, with the outer edge deeply carved (Coles 2005). (B) Head and upper body of the dominant figure at Backa, Bohuslän, with possible facial features set within the shallowly carved central area of the head. The oval or egg-shaped marks at the neck might be a part of the image or may be later additions (Coles 2005).



Fig. 9—(A) The dominant figure at Litsleby, about 2.25m tall, carved over various images and brandishing a spear. Below the head are two cup-marks that probably represent earrings, and the two pointed extensions at the sides of the head may be hair or perhaps some form of tassel (Coles 2005). (B) The Hopperstad, Telemark, images include a large number of adorants, the two largest of which have ornamental heads, probably earring representations. The figure on the left has no neck, and that on the right has additional cup-marks around the head. The illustrations here are based on David Vogt's plans of 2006.

previously. It is the presumed earrings that are widely recognised and, as we will see, matched elsewhere.

At the site of Backa in Brastad parish, Bohuslän, a large human figure dominates the site and overrides several smaller images (Fig. 8B; Coles 2005, fig. 56). The figure is male, with thick calves, and adorant with upward-pointing hands, each with five fingers; one hand may be holding an axe. The head is large, pecked in outline quite deeply and more shallowly internally so that the facial area is distinct from the surrounding rock surface. A new recording has identified faint but suggestive traces of facial features, two small cup-marks perhaps representing eyes and a small mark below that might be a nose; these features have not been noted in previous descriptions from the mid-nineteenth century to the present time. The head is held by a narrow and long neck, and the shoulders are slightly widened. Beneath the neck are two or three oblong markings, which seem to overlie the neck on its right side; a widening on its left side might be contemporary with the carving of the figure, and might indicate some necklet or other decoration, or a neck wrapping.

A third example of an ornamented or special head is more positively identified at the famous site of Litsleby in Tanum parish, Bohuslän (Fig. 9A; Coles 2005, fig. 171). Here there is a wide and smooth granite surface with many images, and the whole complex is dominated by a very large human, with thickened legs, phallus, wide arms in adorant pose and hands, one with fingers, the other holding a long spear. The head of the figure is rather small for the body size and is rounded, with the outer edge deepened and the innermost area, less worked, extending down into the wide neck. At the sides of the head are two irregular marks, pointed and seemingly a part of the original image; they do not look like ears, and might represent hair or, less likely, the ends of some head-covering. Immediately below these projections are two irregular-shaped cup-marks, which may well indicate earrings, although they are irregularly positioned and not evenly circular.

A quite extraordinary discovery in 2003 of a series of rock carvings at Hoppestad, Telemark, Norway, has yet to be fully recorded and published, but a preliminary report (Vogt 2006) provides a guide to the sites. On one of the largest panels of carvings are two images of adorant humans, both large within their own groups of associated carvings (Fig. 9B). One image, set beside a boat with adjacent smaller adorants, has a head not quite attached to the body, and beside the round head are a pair of cup-marks, either ears

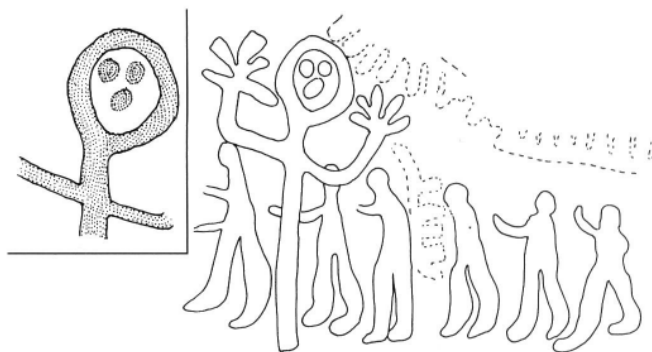


Fig. 10—Part of the lines of human images at Evenstorp, Dalsland, with the major adorant figure, which is about 600mm tall. The rock surface is rough and there may be, or have been, small cup-marks below the head, but the traces are now too imprecise to plan (Coles 2003).

(unlikely) or ornaments along the lines of Hede and Litsleby. The other image at Hoppestad has head and neck attached to the body, two cup-marks beside the head as if earrings were worn, and two further cup-marks immediately above the lower pair; these may be a part of the individual image or be incidental, as the panel of carvings has over 200 cup-marks. The Hoppestad site, and its adjacent sites, indicates that the concept of earring representation on the Bronze Age rock carvings of northern Europe was not restricted to present-day Bohuslän.

Besides these images at Hede, Backa, Litsleby and Hoppestad, another large human head to be noted here is less ornamented but intriguing nonetheless. At the site of Evenstorp in Dalsland, a peculiar array of carvings on an irregular rock surface seems to depict rows of humans walking or marching in a procession (Coles 2003, fig. 24); among a small line of six humans is a single-stemmed image of an adorant, with upstretched arms bearing hands with five fingers (Fig. 10). The body consists only of a single vertical line, surmounted by a large outlined head, with an unpecked interior facial area except for three cup-marks that form two eyes and a nose or mouth. The head is tilted slightly to one side and the neck is very narrow, little more than the single-line body. On the same rock surface are other images as well as the processions, and among these is another outlined disc, or head, surmounting a narrow neck and arms in adorant pose; facial features are absent, only a single large cup-mark filling the disc. Whether this is supposed to be a human representation is unclear, but its overall resemblance to the facially featured figure is clear.

Carved bodies in wider context

These dominant figures from Hede, Backa, Litsleby, Hoppestad and Evenstorp, and those from farther afield, Järrestad and Rickeby and Brandskog, are well outside the ordinary range of human representations on the rocks. They are more individualistic than the square-bodied, weapon-wielding figures that are commonly seen in Bohuslän and adjacent areas. Even so, the depth of detail for body or head decoration on the dominant figures is very limited, and only Hede, Litsleby and Hoppestad carry signs of pendant earrings.

In the corpus of ornaments in gold and other materials from the Bronze Age of north and west Europe, the abundance and variety of necklaces, earrings, bracelets, pendants and the like is very striking, as amply demonstrated by the catalogues of Taylor (1980), Eluère (1982), Eogan (1994) and Broholm (1952; 1953). Yet here on the rocks of the Nordic area, where carved images of a multitude of humans occur, there is overall little trace of such important, valued and culturally significant material. The pendant earrings seemingly depicted at the three sites represent something from the range of possibilities documented in the hoards, burials and single finds of northern and central Europe (see Demakopoulou *et al.* 1999; Oldeberg 1974 for Swedish material), and closer definition may be found in the works of Taylor (1980, pl. 31) and Eluère (1982, fig. 151).

Of course, such intrigues as this are matched and exceeded by other features of the rock-carving tradition. The Bronze Age weapon *par excellence* is the sword, and many sword scabbards appear on the rocks, worn by dominant human figures, but although these figures may wield axes or spears they almost never carry or expose their swords. The contrast with Bronze Age hoards and burials, and stray finds too, is striking, and is only one of the many puzzles that await us in analyses of the figurative rock carvings of the north.

In the course of twenty years' study of the rock carvings of Sweden, Norway and Denmark, it has become increasingly clear that many sites, well known to the visitor, have been diminished by exposure to environmental and human pressures, and by painting here and there. It is also clear that there are many sites not yet affected by such pressures upon their images, and it is on these untouched or little-touched sites where we may well expect to be able to detect the faintest of imagery that might reflect or indicate the presence of minor embellishments around the heads or

necks or arms of human images. The prospects may appear to be remote, based upon the evidence so far accumulated, but the small-scale work of recording done in 2008 on specific images has indicated that more detail remains to be identified than has previously been noted. It is a fact that almost every rock-carving site previously known, published, archived, photographed or even painted can and does yield new detail when modern techniques of recording are applied under the best possible circumstances. Looking only at the sites identified in this paper, the suggestion of a short tunic on the Dancer at Järrestad in Skåne, a possible belt on a figure beside the shield-bearer at Hede in Bohuslän, the probable cloak on the human at Rickeby in Uppland, and the possible traces of skirts on several of the acrobats bending over boats are but suggestions of what might be revealed by new recordings. Work of this sort will doubtless continue in the next few years and will hopefully continue the fine traditions of archaeological investigations that Barry Raftery has established through his own chosen fields of endeavour.

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References

- Broholm, H.C. 1952 *Danske Oldsager III. Aeldre Bronzealder*. Copenhagen. Gyldendal.
- Broholm, H.C. 1953 *Danske Oldsager IV. Yngre Bronzealder*. Copenhagen. Gyldendal.
- Coles, B. 1990 Anthropomorphic wooden figures from Britain and Ireland. *Proceedings of the Prehistoric Society* 56, 315–33.
- Coles, J. 1999 The Dancer on the rock: record and analysis at Järrestad, Sweden. *Proceedings of the Prehistoric Society* 65, 167–87.
- Coles, J. 2000 *Patterns in a rocky land: rock carvings in south-west Uppland, Sweden*. Uppsala. AUN 27.
- Coles, J. 2003 And on they went . . . processions in Scandinavian Bronze Age rock carvings. *Acta Archaeologica* 74, 211–50.
- Coles, J. 2005 *Shadows of a northern past. Rock carvings of Bohuslän and Østfold*. Oxford. Oxbow.

- Coles, J. 2006 Beacon on the ridge. Rock carvings at Kasen Lövåsen, Bohuslän, Sweden. *Proceedings of the Prehistoric Society* 72, 319–39.
- Demakopoulou, K., Eluère, C., Jensen, J., Jockenhövel, A. and Mohen, J.-P. (eds) 1999 *Gods and heroes of the European Bronze Age*. London. Thames and Hudson.
- Eluère, C. 1982 *Les ors préhistoriques*. L'âge du bronze en France 2. Paris. Picard.
- Eogan, G. 1994 *The accomplished art. Gold and gold-working in Britain and Ireland during the Bronze Age*. Oxford. Oxbow.
- Glob, P.V. 1974 *The Mound People. Danish Bronze Age man preserved*. London. Faber and Faber.
- Jensen, J. 1979 *Bronzealderen. Vol. 2: Guder og Mennesker*. Copenhagen. Sesam.
- Oldeberg, A. 1974 *Die ältere Metallzeit in Schweden 1*. Kungl. Vitterhets Historie och Antikvitets Akademien. Monograph 53. Stockholm. Almqvist & Wiksell International.
- Pröhl, H. and Milstreu, G. 1982 Rapport fra Museets arbejdsmark. Kvindefigurer. *Adoranten* (1982), 22–5.
- Randsborg, K. 1993 Kivik. Archaeology and iconography. *Acta Archaeologica* 64, 1–147.
- Taylor, J. 1980 *Bronze Age goldwork of the British Isles*. Cambridge University Press.
- Van den Sanden, W. and Capelle, T. 2001 *Mosens Guder/Immortal images*. Silkeborg Museum.
- Vogt, D. 2006 *Helleristninger i Skien*. Skien kommune.

Tracing lines across landscapes: corporality and history in later prehistoric Ireland

Gabriel Cooney

Introduction

In discussing the evidence for burial in Ireland during the Iron Age Barry Raftery (1994, 189) argued that ring-barrows were the earliest recognisable form of burial and that their origins lay in the Bronze Age (see also McGarry, this volume). Barrows and ring-ditches were in widespread use in Ireland from the middle of the second millennium BC until at least the seventh century AD. Even though the process of Christianisation in Ireland began in the fifth century, the historical sources indicate that some Christians were still choosing to be buried within a small ring-ditched enclosure or barrow referred to as a *ferta* (Bieler 1979, 144–5). In explaining the eventual move away from this practice, Betty O'Brien (1992, 136) made the very significant observation that burial near the bones of the ancestors was replaced by burial near the bones of a saint (see also Ó Carragáin 2003, 147; see O'Sullivan and Harney 2007, chapter 6, for discussion of the longevity of interment in ancestral *féarta* in the early medieval period). There are sites such as Ardsallagh, Co. Meath (Clarke and Carlin 2006), and Cross, Co. Galway (Mullins 2007), where early medieval inhumation burials were preceded by Iron Age and Bronze Age cremation deposits (see also E. O'Brien 1999). The perceived significance of burial near ancestral bones in the barrow tradition in later prehistory might at first glance appear to be contradicted by the observation that excavated barrows frequently produce small or token deposits of human bone, and in some cases none (e.g. see discussion in Daly and Grogan 1993, 57–60). In this paper I want to suggest that consideration of the strength of the ancestral tradition, particularly in the context of barrow cemeteries, allied to the recognition of the specific character of deposition of human bone in barrows in fact provides us with a very important focus for the discussion and understanding of relationships between individuals and society, tradition and memory in later prehistoric Ireland.

In looking at mortuary practice in Ireland in the period after 1600 BC we can see continuity in terms of the continued use of and respect for previously used funerary sites (Cooney and Grogan 1994, 126), but in other ways

mortuary practice changed dramatically. Cremation was now dominant and the treatment of cremated bone suggests that elements of funerary practice, such as the cremation process itself, may have been elaborate. Grogan (2004, 69) has shown that at the beginning of the middle Bronze Age period there are individual burials that show both continuity with the early Bronze Age and concern with the display of status. But over time there was a move away from the concept of the burial of an individual in one particular location or grave. The focus shifts to the deposition of token amounts of cremated bone in or with pottery (e.g. Grogan *et al.* 2007, 116–21). As Grogan and Roche detail (this volume), there is a decrease in the use of decoration on pottery, and coarse domestic vessels appear to emerge from the use of collared and cordoned urns in domestic contexts. This pottery, in the form of flat-bottomed, bucket-shaped vessels, becomes ubiquitous both in everyday contexts and in contexts that suggest a more ceremonial purpose, as in its placement with the dead. Plain coarseware continues to be used to the end of the Bronze Age, when it appears to have been replaced by vessels in other media (B. Raftery 1995).

Cremations are most commonly found in pits, often mixed with charcoal and soil. Such deposits are sometimes placed in sites that had a long history of use for burial, as in the case of early Bronze Age cemeteries (Hencken and Movius 1934). In other cases the deposition of cremated bone is clearly part of a wider suite of ceremonial and religious belief. For example, over the next millennium such deposits would form part of the ceremonies and rituals that were conducted at stone circles and related sites (e.g. Fahy 1962; Lynn 1974; W. O'Brien 1992). Pits containing cremated bone are a common feature on large-scale development-led excavation projects (e.g. Gowen *et al.* 2005; Grogan *et al.* 2007). In locations like the Morningstar River in North Munster the results of such projects can be placed in the context of and be complemented by detailed landscape analysis (Gowen 1988; Grogan 2005b). At this landscape level it can be seen that single pits, pit clusters, ring-ditches and ring-ditch cemeteries all occur, and the latter can be seen as an important focus within this varied funerary tradition (Cooney and Grogan 1994, 129–32). Many of the ring-ditches that are revealed as

subsurface features in development-led excavation projects (e.g. Stevens 2007) would originally have been barrows or related types of sites (see Newman 1997, 157–60).

In a recent overview of round barrows in Britain, Woodward (2000) entitled two of the chapters 'Barrows as graves' and 'Barrows as landscape monuments'. This approach also seems apposite in an Irish context, as in the middle of the second millennium BC there appear to be two linked developments. First, the graves of particular individuals are defined and marked by being placed within a ring-ditch or barrow; second, people frequently placed such monuments in relation to others, leading to the development of barrow cemeteries.

The barrow as grave

Not surprisingly we can trace elements of the use of barrows in earlier times, as far back as the Neolithic (e.g. Hartnett 1971; Mount 1999). Looking more immediately at the early Bronze Age background, in formal Bronze Age cemeteries we see the burial of selected members of communities (e.g. Mount 1997a). In the case of cemeteries that have surface definition as mounds or cairns the cemetery itself is a monument. The Mound of the Hostages at Tara, Co. Meath, provides a good example of a megalithic tomb reused in this way (O'Sullivan 2005). One of the varied ways in which differences between the individuals buried within a cemetery was marked was by making their grave appear separate, special. Hence within cemeteries specific graves are monumentalised. For example, the focal burial (burial 6) of an adult female in the cemetery at Keenoge, Co. Meath, was covered by a cairn (Mount 1997b, 14–17). What seems to happen in the course of the first half of the second millennium BC is that this concept of marking a specific grave as a monument becomes a more important element of the funerary rite. At the same time as cremation becomes the dominant burial rite, the form of the grave and what is placed in it changes. On many sites it is clear that there were a number of depositional events. These commemorated short-term, individual lives, but when linked by oral tradition and social memory they may have been blended to provide the basis for long-term histories and traditions (e.g. Rowlands 1993; Casey 2000, 216–17). Given that there were time gaps between events, which could not have been remembered very clearly, the possibility for introducing new elements while stressing continuity would have been

considerable (Garwood 1991, 25).

For example at Kilmahuddrick, Co. Dublin (Doyle 2005), the barrow was located on a low rise in an otherwise flat area. The site appeared on excavation as a ring-ditch, over 12m in diameter, with no surviving trace of a raised central area (Fig. 1). But Doyle (2005, 56–9) argues that there would have been a barrow here. The ditch was up to 2.5m wide and up to 1.7m deep, narrowing markedly to the bottom. Shortly after the ditch was dug, stones had been placed in its base (and limestone blocks exposed by digging the ditch were left *in situ*), including what appeared to be a small cist-like structure, but with no evidence of human bone. Fires were lit on some of the stones and ash charcoal from this activity gave a date of 2398–2047 cal. BC. The basal silt, however, produced a date of 1208–935 cal. BC from oak charcoal. The lower part of the ditch then silted up naturally. At the centre of the internal, enclosed area the earliest dated feature was a pit with a fill that contained a representation of the cremated, heavily crushed, remains of an adult and possibly also a juvenile, dated to 992–822 cal. BC. In the fill was a sherd of pottery and a small black glass bead. The deposit that was placed to seal and cover the cremated bone in this central pit was cut by two other pits, one to the east and one to the west, both filled with clay and inclusions of cremated bone. The shallow depression to the west was filled with two deposits of cremated bone. The lower cremation seemed to represent a sample of the remains of one person, dated to 1012–819 cal. BC. The upper layer was dominated by the remains of human skull bone. It is possible that both deposits could represent the same person (Buckley 2005, 66). A fragment of the unburnt, weathered skull of an adult, dated to 911–802 cal. BC, was placed on the silted-up surface of the western side of the ditch. Some time after this it seems that the upper part of the ditch was deliberately filled with heat-shattered stone, charcoal and fragments of human and animal bone. One sample of this human bone was dated to between 373 and 111 cal. BC. Around the same time two spreads of cremated bone, including both animal and human bone, were placed outside the ring-ditch. These were disturbed by a linear ditch, forming part of an early medieval field system, running north–south just to the west of the barrow. One of these, which also contained a burnt amber bead, was dated to 393–192 cal. BC.

At Kilmahuddrick it seems that there are at least two distinct series of events, around 1000–800 cal. BC and between 400 and 100 cal. BC. The earlier dates for activity in the base of the ditch (2398–2047 cal. BC) indicate the

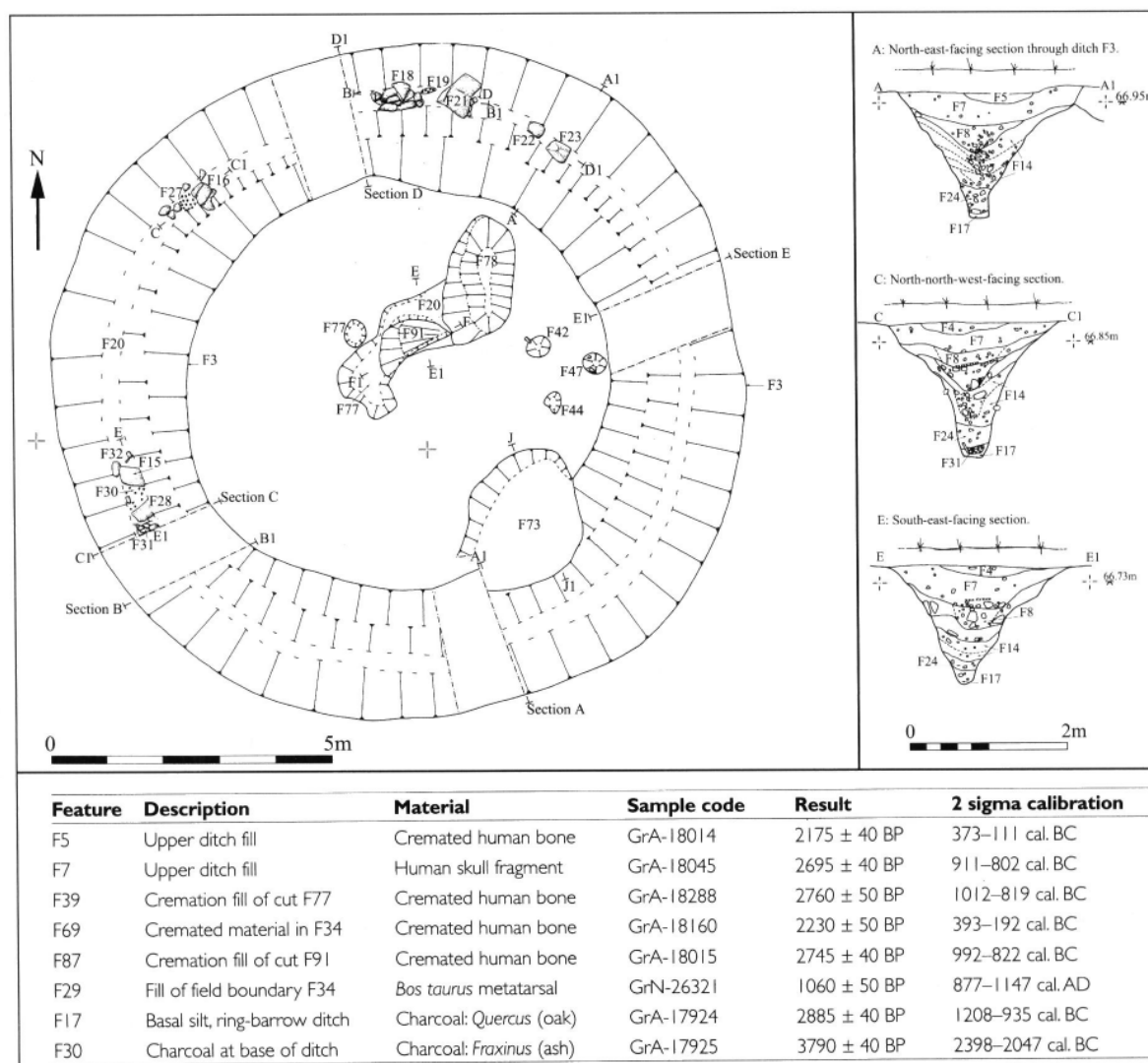


Fig. 1—The sequence of activity at Kilmahuddrick, Dublin 22 (after Doyle 2005).

possibility of a third, earlier phase related to the construction of the monument, which may have been disturbed by later activity (Doyle 2005, 61). The creation of the monument may in itself have been a key event in the history of the site in its wider landscape context, as Lynch (1993), for example, argued in the case of the cairn that contained neither burials nor grave-goods but was the earliest monument in the cairn cemetery in the Brenig valley, Denbighshire, Wales. At Kilmahuddrick the dates after 1000 cal. BC for the central cremations and the skull in the ditch certainly post-date the construction of the barrow, as the skull in the ditch was placed there after there had been episodes of silting in the ditch and the build-up of 1m of deposit (see Fig. 1). This

suggests that the status of particular individuals was deliberately recognised by their insertion into the site. In turn, the deposition of corporate relics of individuals within the barrow and the manner in which it was carried out would have given additional meanings to the place. These links and resonances are very strongly brought out in the latest activity on the site, dating from the Iron Age. The cremated human bone in the highest level of the ditch fill and in the features to the west of the barrow suggests that the placement of human bone was a key element in the marking of the end of the active presence and use of the barrow in the last centuries BC.

Landscape monuments: following lines, tracing histories

Hence the detailed sequence from excavated barrows demonstrates that they were built and remodelled, and memory charged or changed, through and by the activities at the sites (e.g. Mizoguchi 1993; Last 1998; Bradley 2002, 111). Just as the history of specific sites is varied, so is the pattern of the spatial distribution of barrows. A key feature is the occurrence of barrow cemeteries. If we can see the sequence of events at individual sites as the working out of different local histories while links with past lives and ancestors are maintained and changed, can the arrangement of barrows inform us about these histories and links between people in a complementary manner? This point was argued very cogently in an important contribution by Garwood (1991). He made the link between the spatial association of barrows in a cemetery and history by referring to genealogies as historical sequences, marking the relationship of descent lines to a mythic time when lineages were created. Historical identity was created by spatial association (Garwood 1991, 26). The placement of barrows in relation to others demonstrated a marked concern with the past and the creation of a mnemonic pattern in which the monuments could be placed and related as social and ancestral history.

Woodward (2000, chapter 4) summarises the main forms of barrow cemeteries in Britain with particular reference to southern Britain and argues that a number of distinct arrangements can be recognised, which include small nucleated cemeteries, linear cemeteries, dispersed cemeteries and row cemeteries. A key element of Woodward's discussion is the recognition that there are distinct groupings *within* cemeteries, for example that dispersed cemeteries frequently have nucleated elements. In Ireland, while the discussion of individual barrows as monuments has been to the fore (e.g. Eogan 2004; Corlett 2005), it has also been long recognised that distinct groups or clusters of barrows occur. For example, Carrowjames, Co. Mayo, was excavated in the 1930s by Joseph Raftery (1939; 1941) and the Slieve Breagh cemetery in County Meath was surveyed in the 1950s (de Paor and Ó h-Eochaide 1956). Attention has been paid to larger barrow cemeteries, as on the Hill of Tara (Swan 1978; Newman 1997), at Rathcroghan (Waddell 1988) and in North Munster, where they occur alongside small groups of barrows (Grogan 2005b, 68–109, 169–86), and Mulrooney (2008) has

conducted a detailed comparative analysis of the development of different cemeteries focused on the barrow landscape of the Plains of Boyle, Co. Sligo. Cooney and Grogan (1994, 126–42) emphasised the long history of particular barrow cemeteries and the expansion of the tradition from the middle Bronze Age. Barry Raftery (1994, 188–99) discussed the significance of barrows and barrow cemeteries in the Irish Iron Age. Bradley (2007, 201) notes the important contrast between the curtailment of barrow-building in lowland England by 1200 BC and the continuity of this tradition well into the Iron Age in Ireland.

An important review and overview of barrows was set out by Newman as a context for the presentation and interpretation of the development of the complex of monuments on the Hill of Tara (Newman 1997, 153–70). This provides not only a preliminary framework for the development of the barrow cemetery at Tara but also important guidelines for interpreting the spatial and chronological patterning in other barrow cemeteries. Five basic forms of barrow were recognised as occurring at Tara: ring-ditches, embanked ring-ditches, ring-barrows, bowl-barrows with outer bank and bowl-barrows (*ibid.*, 155–7, fig. 65). Ring-ditches and embanked ring-ditches began to be used in the Neolithic but the majority of dated examples are of Bronze Age date. Ring-barrows are defined as having a low central mound and external bank, and most of the comparative sites assessed by Newman dated from the Iron Age. Bowl-barrows and bowl-barrows with an outer bank have more substantial mounds, and most of the dated examples belong to the middle Bronze Age (*ibid.*, 160–8).

Newman used the broad dating trends of the different types to assign them to different periods. Combining this approach with consideration of the spatial arrangement of the barrows provides important insights into the development of the complex at Tara (Fig. 2, after Newman 1997, fig. 84a and b, phases 1–8). Tara had been a focus of Neolithic activity (phases 1–3), which included construction of the passage tomb known as Dumha na nGiall (the Mound of the Hostages) (O'Sullivan 2005). The Mound of the Hostages and the area to the north of it appear to have been the focus of activity in the later Neolithic and into the Bronze Age. A formal entranceway into this area is provided by the cursus-like linear embanked feature known as the Tech Midhúarta (Banqueting Hall). Recent geophysical survey has demonstrated the presence of a large circle composed of a ditch with post on either side that respects the southern end of the Banqueting Hall and encloses the

Mound of the Hostages (Fenwick and Newman 2002). It is in this landscape setting that the development of the barrow cemetery (phases 4–8) can be placed. The Mound of the Hostages is reused as a cemetery mound and it is perhaps not surprising that one of the two small groups of the postulated earliest barrows (phase 4) is found to the south of this site, consisting of two possible bowl-barrows with outer banks. The second group, an east–west line of bowl-barrows with outer banks and embanked ring-ditches, occurs to the west of the north end of the Banqueting Hall. Over the next millennium these two clusters, which we could call for ease of reference the Mound of the Hostages cluster and the Rath Gráinne cluster (after the most prominent, if not the largest, barrow in the group to the west), become larger and more diverse. This would fit into Newman's phases 5 and 6 of the development of the Tara complex, when the ring-ditches, bowl-barrows and ring-barrows were built. In the first century BC the construction of the large enclosure of Ráith na Ríg (Roche 2002) emphasised the central monuments in the Mound of the Hostages cluster (Fig. 2). In phases 7 and 8 some of the barrows are incorporated into the large earthworks that were constructed inside and to the north and south of Ráith na Ríg.

If we think in historical and social terms, this deliberate concentration of sites into clusters was built on the deliberate decision to place monuments, and the remains and memory of the individuals represented in the graves within them, close to and in relation to earlier, older sites. Newman (1997, 169) has drawn attention to what might be seen as the most deliberate version of this activity, namely the building of barrows so that they are contiguous and overlap with each other. At Tara the central mound of an older barrow is often incorporated into the bank of a later one. It was important to maintain the central area, where the graves and the memory of the individuals represented in them would be preserved. Arising from the detailed analysis of the location and relationship of the barrows at Tara, Newman (1997, 169) commented that in a number of cases when barrows overlap the later monument is placed so that it is attached to the south-western part of the earlier site. Over time this resulted in a general linear spatial development from north-east to south-west.

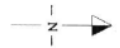
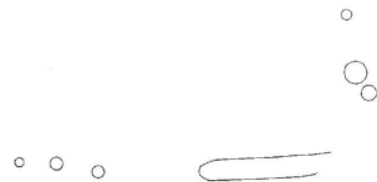
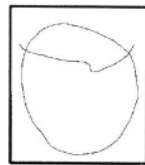
In trying to understand what was going on as this cemetery complex was sustained and enlarged through mortuary activities, including the construction of barrows, it might be useful to return to the patterning in some of the earlier Bronze Age flat cemeteries. There it appeared that the

main axis of burial focused on the graves of significant individuals and was linear, as for example at Keenoge (Mount 1997b, fig. 3; see Bradley 2007, fig. 3.30). With the move over the course of the end of the early Bronze Age and into the middle Bronze Age to a diminished focus on the grave itself but its greater visibility by being enclosed by a ditch and/or covered by a mound, the same principle of relationship and lineage may now have been expressed in the relative location of barrows. This would be a further elaboration of the idea of an individual, founding ancestor. As barrow cemeteries develop, lineage or lineages could be spatially and historically linked and be seen to be descended from a remembered ancestor. Just as people had in earlier times deliberately opened graves to place later burials or had placed later burials in barrows close to existing foci (e.g. Grogan 1990; Last 1998), so barrows were built close to or to incorporate earlier ones. Each episode of adding on a barrow on the side of a cluster or individual monument, digging the ditch and grave, placing and covering the bones (often only a token of the cremated remains of the person) served to reinforce these links through these symbolically charged actions.

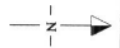
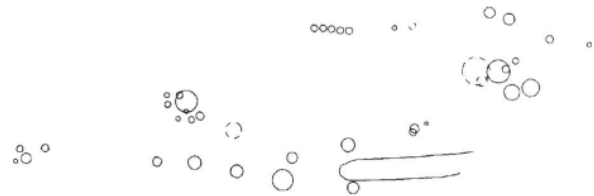
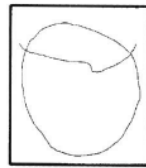
Consideration of the barrow complex at Tara may provide an understanding of why it became such a pre-eminent sacred place by the end of prehistory. The barrows were placed there because it was already a sacred place. One of the barrow clusters develops to the south and west of the visible ancient focus of the Mound of the Hostages. The elaboration of the cemetery over time may well reflect both links and tensions between ancestral lineages reflected in the clusters. It could be argued that the location of the barrow cluster near the Mound of the Hostages suggests that the associated lineage(s) may always have had a pre-eminent position. This would seem to have been reinforced by the enclosure of the central part of the cluster within Ráith na Ríg in the first century BC.

Following on from this discussion of the barrow cemetery at Tara, the potential of the analysis of the spatial arrangement of barrows in other cemeteries can be explored. West of Collon, Co. Louth, there are a series of broadly east/west-trending ridges. Several of these have barrow concentrations, as at Mount Oriel and Dunmore, Co. Louth (Buckley and Sweetman 1991, 44–57). The best known of these concentrations is at Slieve Breagh, Co. Meath (de Paor and Ó h-Eochaide 1956; Moore 1987). Here (Fig. 3a and b) the barrow cemetery is on a prominent ridge, with the summit at 226m OD and views to the distance, particularly

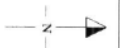
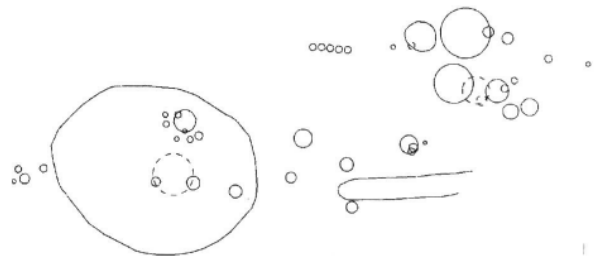
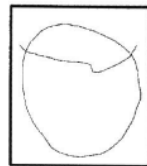
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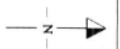
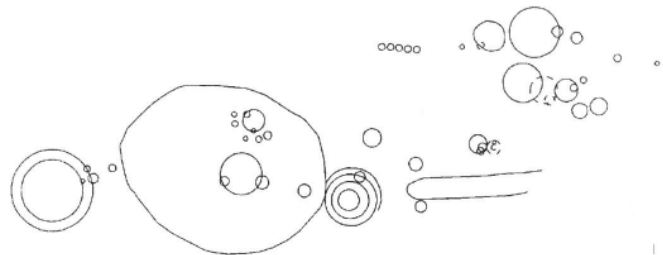
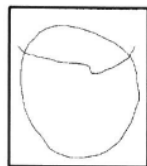
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Phase 6



Phase 7



Phase 8

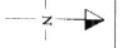
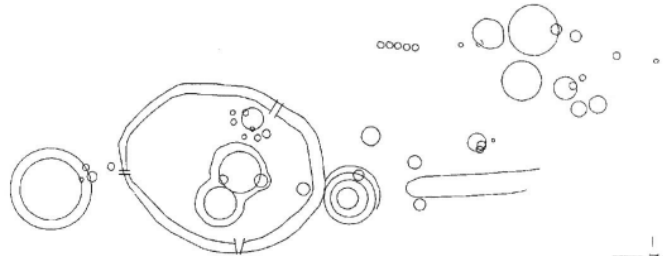
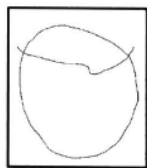


Fig. 2—Phases 4–8 in the development of the complex on the Hill of Tara (after Newman 1997, fig. 84).

to the north and south. There was Neolithic activity on the southern side of the ridge (Grogan 1996). The most prominent barrow is a bowl-barrow close to the highest point of the ridge, and the cemetery, taking the form of large and small ring-barrows (de Paor and Ó h-Eochaide 1956, 100–1; Mulrooney 2008, 111–12), extends both to the east and more extensively to the west of this prominent mound, in two distinct clusters, concentrated in areas of relatively flat ground. The first of these clusters is focused on the bowl-barrow and the second one is on lower ground to the west. Mulrooney's detailed topographical survey and analysis (2008, 105–26) indicates that the small (which Mulrooney calls type B) ring-barrows are located with reference to and are later than the large (Mulrooney's type A) ring-barrows. These large ring-barrows are on the ridgeline and emphasise the linearity of the cemetery at this phase. The cemetery then became more nucleated with the placement of the small ring-barrows, emphasising the two clusters within the cemetery. At a general level the tendency for the majority of small ring-barrows to be placed in particular to the west and north-west of existing barrows echoes the pattern seen at Tara.

At both Tara and Slieve Breagh we rely on detailed survey to trace the historical and social development of the barrow cemeteries. Even though it was excavated in the 1930s by Joseph Raftery (1939; 1941), the cemetery at Carrowjames, Co. Mayo, near Castlebar, still features prominently in discussion of barrows because he excavated a large number of sites in the cemetery, facilitating a discussion of the relationship of well-dated sites (Fig. 4a and b). Carrowjames is also important in that it is, like many other barrow cemeteries or clusters, in a low-lying location. The discussion above may have focused on ridge-top cemeteries but it is important to stress that these are complemented by sites in low-lying, sometimes seasonally wet areas (see Grogan 2005b, 68–88). At Carrowjames the sites were deliberately placed on slight, natural rises. Three bowl-barrows (Carrowjames I) were located about 90m to the north-west of another group of seven ring-barrows and bowl-barrows with a couple of associated standing stones. The three barrows in Carrowjames I were of similar construction and size (about 15m in diameter). Each had centrally placed cremation burials in pits, with later burials and scatters of cremated bone. In two of the three mounds (2 and 3) the cremated remains of an adult were contained beneath an inverted cordoned urn, accompanied by a bronze razor. In tumulus 1 the cremated bones of an adult and child accompanied by a razor were placed in a centrally dug pit,

covered by a limestone slab. These three barrows on a north–south alignment would have been constructed in the period between 1880 and 1500 BC, on the basis of the dating of the urns and razors (see Brindley 2007, 152). They may have been constructed over a relatively short period of time and represent the mortuary practice of a particular generation. Alternatively, we may be seeing in this linear arrangement both the remembrance of individuals and the construction of a clear, strong sense of lineage and descent through the reiteration over 300 years of a set of mortuary practices at the time of death of particular people. Given the general trend over time within this period of a move away from inurned burials, it might be suggested that tumulus 1 at the north end of the line is the latest of the three barrows and that tumulus 3, the largest and most southerly, is the earliest.

At Carrowjames II to the south-east the earliest sites are the bowl-barrows (tumuli 6, 7 and 9) about 8m in diameter, all with a central pit. At tumulus 6 there was an elaborate sequence of activity. A central pit contained two cremated bone deposits, separated by a slab. The pit was covered by a small boulder, and a C-shaped setting of stones was placed around it. A ring of small stones was placed about 1m away from the grave. Then the ring-ditch was dug and the mound placed to cover the burial. While these sites are difficult to date, they do seem to fit with the pattern of token bone deposits and the lack of associated material that was typical of mortuary activity in the time from around 1400 BC on. To the east and south of these sites are ring-barrows (tumuli 4, 5 and 8) that seem to be the latest in the cemetery. Tumuli 4 and 8 are significantly larger than the other sites and are over 20m in diameter. Tumulus 8 was of Iron Age date, probably dating from the last few centuries BC. The 25 burial deposits in the interior were clustered around the central area. All were in pits, and in nine cases there were associated artefacts. For example, associated with cremation 11, just to the west of the centre of the enclosed area, there were nine glass beads, and with cremation 17 there were two oval bronze rings and three bronze studs.

What are we to make of this long sequence of activity over a millennium and a half? The line of bowl-barrows at Carrowjames I could be seen as contemporary with or at least overlapping with the earliest activity in the eastern cluster at Carrowjames II. Could we be looking at a representation of two lineages, or a more continuous and evolving sense of history and place in the distribution of the barrows? Over time the eastern cluster certainly became the

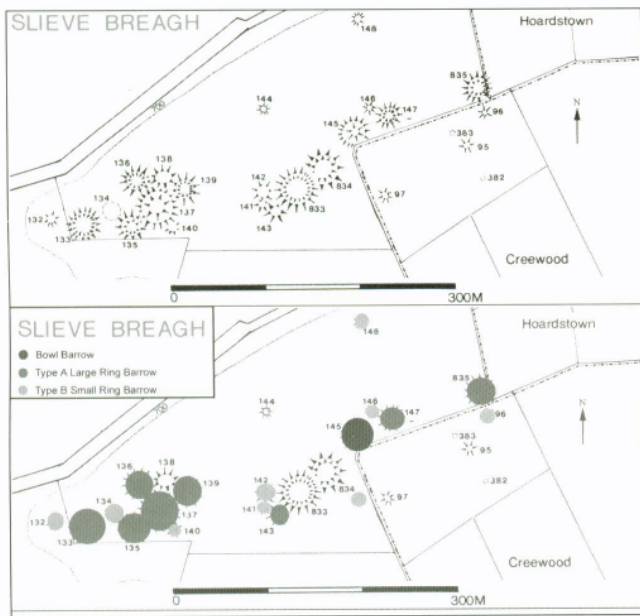


Fig. 3a (above)—The development of the barrow cemetery at Slieve Breagh, Co. Meath (after Moore 1987 and Mulrooney 2008).

Fig. 3b (right)—The barrow cemetery at Slieve Breagh, Co. Meath, from the east (photo: Gillian Barrett).



focus of activity. While this cluster (Carrowjames II) could also be seen as having a north–south alignment, the sense of a line to the past being expressed by the expansion of the cemetery to the east continued, as tumulus 8 seems to be relatively late in the development of the cemetery. Here with the deposition of cremated bone in 25 pits we seem to have a representation of a cemetery barrow, rather than the barrow being the visible maker and reflection of the remembrance of a very small number of specific individuals, which was a dominant theme in the emergence of the barrow tradition. This raises the question of whether a different sense of the relationship between the individual and society was emerging at this time in the Iron Age. This is an issue to be explored in detail elsewhere, but the re-emergence of a concern with individual identity as expressed in the deposition of personal ornament with cremated deposits (see B. Raftery 1994, chapter 8) may be one of a number of

interrelated influences that would see the re-emergence of inhumed, individual burial in the early centuries AD.

Landscapes of the living and the dead in later prehistoric Ireland

The scenario presented above suggests that from the middle of the second millennium BC and for a period lasting well over a thousand years the use of barrows and the development of barrow cemeteries conveyed a sense of lineage and ancestry. This had as a point of origin the construction of prominent barrows (Grogan 2005b, 69) and the remembrance of particular ancestors. In some cases, however, a clear, deliberate link is established with existing ancestral traditions, as with the Mound of the Hostages at Tara. Over time, as the direct memory of individuals faded,

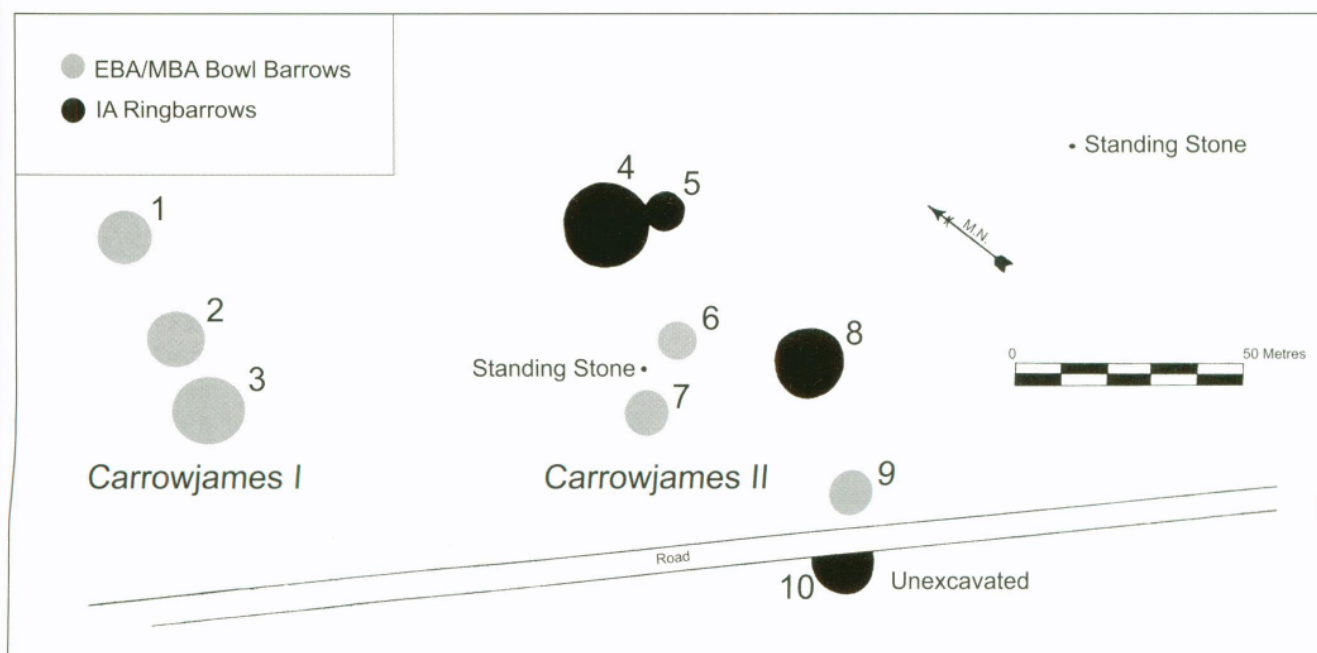


Fig. 4a (above)—The barrow cemetery at Carrowjames, Co. Mayo (after J. Raftery 1941).

Fig. 4b (right)—The barrow cemetery at Carrowjames, Co. Mayo (photo: from the collection of J. Raftery).



their social and ancestral importance was emphasised by the placement of later barrows in a direct, sometimes overlapping spatial relationship with them. This symbolic and material expression of social links may have been used to express claims of ancestry that were more fictional than real, as genealogies were reworked to provide for the acknowledgement and inclusion of the changing focus of status and rank among the living (Garwood 1991, 26).

As a background to this we should look at the differences that were expressed between graves in early Bronze Age cemeteries. At the end of this period the ritual

focus shifted to what happened before and after the actual burial event. The cremation process, including the location and dispersal of pyre material as well as the cremated bone, comes more to the fore, as does the marking of the grave with a barrow. One example of this is the digging of a pit (in which cremated bone and a razor were deposited) through cremation pyre material, the digging of an enclosing ditch and the placement of a cairn of stones and barrow at Carrowbeg North, Co. Galway (Wilmot 1939). These aspects of the funerary process are likely to have been public, social occasions. This adds support to the concept of seeing

the barrows as a spatial display of social history. The selected remains of individuals who are buried there are themselves only a small selection of the living population. Indeed, comparing later Bronze Age cemeteries to early Bronze Age cemeteries, there appears to be a greater concentration on adults and on the representation of single adult individuals (Lynch and O'Donnell 2007, 108–12).

Putting this evidence in a wider context, even in recent treatments of this period attention tends to be focused on the apparent dichotomy between the decreasing visibility of the record for human burial and the increasing evidence for other kinds of ceremony and ritual, notably the deposition of large amounts of metalwork, both single objects and hoards, in wetland contexts. While some attempt has been made to draw these trends together in the past, as in George Eogan's (1983, 285) suggestion that hoards of late Bronze Age metalwork might represent 'graveless grave goods', more recently commentators have focused on the implications of this dichotomy. In the south-west the rise of the stone circle tradition has been linked to the expansion of settlement and the gradual emergence of a stratified Bronze Age society related to the control over the supply of metal and exchange networks (W. O'Brien 1999, 287). More broadly, Cooney and Grogan (1994, 144–5), looking at the complexity and variety of the deposition of metalwork, suggested that this indicated that it was in the sphere of life rather than death that differences in social standing were expressed. It was argued that this was expressed through increased wealth, including personal ornamentation and the deposition of material, especially in wetlands. Drawing on the discussion above, I want to suggest here that in current interpretations of later prehistoric Ireland we have tended to overlook both the continuing importance of the past and the ancestors as well as the complex and subtle interweaving of ideas and places that people drew on in using the past and the dead in the affairs of the living.

Barrow cemeteries are set within a range of funerary practice that also incorporated less formally defined and visible pit clusters and single pits with cremated bone deposits. The frequency and density of such features being recorded on large-scale excavation projects indicate that we need to re-evaluate our ideas about the place and role of the dead in later prehistoric Ireland. Examples of large clusters include those found at Ballyconneely, Co. Clare (Read 2000), Rathcannon, Co. Limerick (Taylor 2007), and Killoran 10, within the Derryville–Lisheen complex, Co. Tipperary (Stevens 2005). Small clusters and single pits are

also common, for example two cremation pits were found outside a later Bronze Age enclosure at Sheephouse, Co. Meath (Nelis 2002). There were three cremation deposits. In one pit two deposits were separated by a small, charred plank, echoing a practice seen at Kilmahuddrick and Carrowjames. This pit at Sheephouse was sealed by a charcoal-rich soil and included a saddle quern.

Landscape-based projects like that in the Mitchelstowndown–Raheen area of south-east Limerick (Gowen 1988; Grogan 2005b, 62–76) and the Derryville–Lisheen complex (Gowen *et al.* 2005) demonstrate that pit burials occur more widely in organised landscapes, in the vicinity of or close to settlement sites and also close to what are likely to have been the well-known, habitually used areas that were at the core of everyday life. The occurrence of bone in such pits is usually of a token nature. In an important study Cleary (2005) has shown that there was a pattern of deposition of human bone, both cremated and inhumed, on settlement sites that was widespread and carried out in a deliberate manner. In commenting on such practices in southern England, Brück (1995) drew attention to the metaphoric significance of cremated bone in providing a physical link between the living and their dead, potentially providing people with access to resources associated with the ancestors. Not surprisingly, Brück (1999) argues that such deposits may have been made particularly effective by their positioning within the settlement and at critical times in the life of the settlement and the people who lived there.

Thinking about the variety of evidence we have for the occurrence of human bone in later prehistoric Ireland, a key interpretative problem is the frequent use of the term 'burial' when referring to the placement of the dead in barrows and related sites, such as pits and pit clusters. But we have seen in many cases that these are only token deposits. What archaeologists recognise and refer to as the 'burial' only contains token remains, often of cremated bone that has been pounded and crushed (see discussion in Lynch and O'Donnell 2007, 107–12). Parts of the body were treated differently, for example the presence of unburnt skulls suggests not only a complex treatment of bodies after death but also that the skull plays an active symbolic role. In other cases we see the formal deposition of human skulls as a signifier of sacred space or a foundation on which sacred practices became appropriate (Cooney and Grogan 1994, 147). Human skulls also occur in rivers and lakes, as at Lough Gara, Co. Sligo (Fredengren 2002). An example that

was deposited in a lake at Cloonfinlough, Co. Roscommon, and settled on the shell marl at the bottom of the lake was dated to 1130–830 BC (Delaney and Woodman 2004, 10). Lynch and O'Donnell (2007, 110) discuss the placement of human skulls in *fulachta fiadh* at Cragbrien, Co. Clare, and Inchagreenoge, Co. Limerick, apparently deposited in the late Bronze Age after the sites had gone out of use.

This array of evidence suggests that the presence of the dead permeated all aspects of life, and that it was purposely dispersed across the landscape, perhaps to a greater extent than at any earlier stage in prehistory. People would have engaged with the physical presence of the dead in a wide variety of contexts. In these circumstances a sense of connection with the dead and memories of both recently dead people and more anonymous ancestors could be regarded as important characteristics of later prehistoric social groups in Ireland. If people perceived and actively participated in the dispersal and deposition of bone of particular people after their death and cremation in a number of locations, perhaps to serve different roles in different places, then it seems possible that the living had a less bounded sense of what made an individual. People may have been viewed in terms of places, objects and relationships with a very strong sense of shared rather than individual lives (e.g. Fowler 2004, 63–4, 99). This does not imply in any sense that all people were regarded as equal. For example, as we have seen above, most people were excluded from representation in barrow cemeteries, which could also be interpreted as reflecting the tensions between the relative importance of lineages and their historic and developing role in a wider social context.

On the other hand, we need to think more about the human body in interpreting other aspects of the archaeological record. The deposition of metalwork has been seen as the best indicator of status differentiation in later prehistoric Ireland. But once you start to think about this from the perspective of the body, it could be argued that this practice is focused on ideas of the human body, dead and alive. Most straightforwardly the metalwork itself can be seen as a reflection or extension of human bodies as it takes the form of weapons, tools and ornaments (see Eogan 1983, 11). In this way we can see the validity and usefulness of Ingold's (2000, 321) observation that the tools are not just a mechanical addition to the body—they extend the whole person. For example, Fowler (2004, 63–4) presents the argument of Mike Williams that the life cycle of swords in northern Europe in the late Bronze Age suggests that they

would have been regarded and treated like people upon death. Becker (forthcoming) has argued that in the deposition of Iron Age metalwork in Ireland we can see a representation of a standardised 'identity' that complements the burial of the actual person. The possession and exchange of objects carries a sense of engagement between people. These echoes of human engagement might also have been borne by objects as people placed them in the ground. For example, gold neck-ornaments would have had a strong association with the human head. Like human bone, they could have been symbolically active after deposition and in some instances, for example as with human skulls, appear to have been retrieved for further use (see Becker 2008, 14–15). Hence, even if there is no direct link with human remains, the deposition of metalwork revolved around concepts of the body, identity and the relationships between people in social networks. That these ideas were thought about with reference to the dead and the past can be seen in a number of strands of evidence. For example, there is evidence that these sets of ideas were directly brought together. In the late Bronze Age burial complex at Rathgall (B. Raftery 1981, 173–60) there were three cremation deposits in pits within a ring-ditch about 16m in diameter. The central pit had been excavated through a possible funeral pyre. In a similar pit to those containing the cremated human bone a fragment of a leaf-shaped sword, an incomplete socketed spearhead and a chisel were placed. Here a link is being made between the deposition of metalwork in relation to a known place of deposition of cremated bone, in a manner that suggests that the material is being thought of as related to, or like, human bone. The occurrence of human skulls in wetland contexts has been referred to above, and it is in this kind of terrain that much of the metalwork was deposited. More broadly, the concentration of barrow cemeteries and related sites in low-lying, seasonally inundated locations like the Morningstar valley in south-east Limerick has been discussed. This might be suggested as indicating some metaphoric resonances between places that were seen as 'good' and 'right' for the deposition of both human remains and metalwork. The deposition of the latter could be seen as an extension of the dispersal of the former across the landscape. Both would appear to have been placed to provide a portal and conduit to the Otherworld, connecting the affairs of the living with the supernatural.

It is suggested that at least in some parts of the island distinct elements in a hierarchy of settlements can be recognised from the middle Bronze Age onward. This is

based on an examination of the evidence from North Munster. Here Grogan has suggested that hillforts represent the highest-status sites, with a communal function. Next come smaller enclosures, essentially what may have been farmsteads for a couple of households, and finally single open or enclosed houses also occur (Grogan *et al.* 1996; Grogan 2005a, 83–102). Whatever about the applicability of this model to other areas, we can certainly see the emergence of the hillfort in the last few centuries before 1000 BC (see discussion in Bradley 2007, 216–18). This suggests that concepts of group identity and scale were extending at this time from a background in the early Bronze Age of a focus on local, small-scale networks of identity and interaction. Matching the growing diversity of the settlement evidence and the increasing range and diversity of metalwork there is a widespread occurrence of human remains, as well as echoes of the dead, across the landscape.

There is also a deliberate representation and highlighting of the memory of the dead at significant sacred places. In mythic understanding, both natural and humanly constructed places could have been seen as culturally enriched and important. On hill- and ridge-tops and in low-lying wet areas barrow cemeteries are constructed against this cultural backdrop. Within these cemeteries the placement of graves and barrows comes to represent the relative importance of ancestors and patterns of descent that could be recounted and remembered and that provided a sense of authority and legitimacy to the present. In this way the cemeteries came to represent the lines of history.

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References

- Becker, K. 2008 Left but not lost—Bronze Age deposition. *Archaeology Ireland* 83, 12–15.
- Becker, K. (forthcoming) The Irish Iron Age: continuity, change and identity. In T. Moore and X. Armada (eds), *Atlantic Europe in the first millennium BC*. Oxford University Press.
- Bieler, L. 1979 *The Patrician texts in the Book of Armagh*. Scriptores Latini Hiberniae 10. Dublin Institute for Advanced Studies.
- Bradley, R. 2002 *The past in prehistoric societies*. London. Routledge.
- Bradley, R. 2007 *The prehistory of Britain and Ireland*. Cambridge University Press.
- Brindley, A.L. 2007 *The dating of Food Vessels and Urns in Ireland*. Bronze Age Studies 7. Department of Archaeology, National University of Ireland, Galway.
- Brück, J. 1995 A place for the dead: the role of human remains in late Bronze Age Britain. *Proceedings of the Prehistoric Society* 61, 245–77.
- Brück, J. 1999 Houses, lifecycles and deposition on middle Bronze Age settlements in southern England. *Proceedings of the Prehistoric Society* 65, 145–66.
- Buckley, L. 2005 Analysis of the human bone from Kilmahuddrick. In I. W. Doyle, 'Excavation of a prehistoric ring-barrow at Kilmahuddrick, Clondalkin, Dublin 22'. *Journal of Irish Archaeology* 14, 64–6.
- Buckley, V.M. and Sweetman, P.D. 1991 *Archaeological survey of County Louth*. Dublin. The Stationery Office.
- Casey, E.S. 2000 *Remembering: a phenomenological study* (2nd edn). Bloomington. Indiana University Press.
- Clarke, L. and Carlin, N. 2006 Life and death in County Meath. *Archaeology Ireland* 20 (4), 22–5.
- Cleary, K. 2005 Skeletons in the closet: the dead among the living on Irish Bronze Age settlements. *Journal of Irish Archaeology* 14, 23–42.
- Cooney, G and Grogan, E. 1994 *Irish prehistory: a social perspective*. Bray. Wordwell.
- Corlett, C. 2005 Ring-barrows—a circular argument with a ring of truth? In T. Condit and C. Corlett (eds), *Above and beyond: essays in memory of Leo Swan*, 63–71. Bray. Wordwell.
- Daly, A. and Grogan, E. 1993 Excavation of four barrows in Mitchelstowndown West, Knocklong, County Limerick. *Discovery Programme Reports* 1, 44–60.
- Delaney, M. and Woodman, P.C. 2004 Searching the Irish Mesolithic for the humans behind the hatchets. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metals: essays in honour of George Eogan*, 6–11. Oxford. Oxbow.
- De Paor, L. and Ó h-Eocháide, M.P. 1956 Unusual group of earthworks at Slieve Breagh, Co. Meath. *Journal of the Royal Society of Antiquaries of Ireland* 86, 97–101.

- Doyle, I.W. 2005 Excavation of a prehistoric ring-barrow at Kilmahuddrick, Clondalkin, Dublin 22. *Journal of the Royal Society of Antiquaries of Ireland* 14, 43–75.
- Eogan, G. 1983 *Hoards of the Irish Later Bronze Age*. University College Dublin.
- Eogan, J. 2004 The construction of funerary monuments in the Irish Early Bronze Age: a review of the evidence. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metals: essays in honour of George Eogan*, 56–60. Oxford. Oxbow.
- Fahy, E. 1962 A recumbent-stone circle at Drombeg, Co. Cork. *Journal of the Cork Historical and Archaeological Society* 67, 59–69.
- Fenwick, J. and Newman, C. 2002 Tara. *Discovery Programme Reports* 6, 1–17.
- Fowler, C. 2004 *The archaeology of personhood: an anthropological approach*. London. Routledge.
- Fredengren, C. 2002 *Crannogs: a study of people's interaction with lakes, with particular reference to Lough Gara in the north-west of Ireland*. Bray. Wordwell.
- Garwood, P. 1991 Ritual tradition and the reconstitution of society. In P. Garwood, D. Jennings, R. Skeates and J. Toms (eds), *Sacred and profane*, 10–32. OUCA Monograph 32. Oxford. Oxford University Committee for Archaeology.
- Gowen, M. 1988 *Three Irish gas pipelines: new archaeological evidence in Munster*. Dublin. Wordwell.
- Gowen, M., Ó Néill, J. and Phillips, M. (eds) 2005 *The Lisheen Mine Archaeological Project 1996–8*. Bray. Margaret Gowen and Co./Wordwell.
- Grogan, E. 1990 Bronze Age cemetery at Carrig, Co. Wicklow. *Archaeology Ireland* 16, 12–14.
- Grogan, E. 1996 Neolithic houses in Ireland. In T. Darvill and J. Thomas (eds), *Neolithic houses in northwest Europe and beyond*, 41–60. Oxford. Oxbow.
- Grogan, E. 2004 Middle Bronze Age burial traditions in Ireland. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metals: essays in honour of George Eogan*, 61–71. Oxford. Oxbow.
- Grogan, E. 2005a *The North Munster Project. Volume 1: The later prehistoric landscape of south-east Clare*. Discovery Programme Monograph 6. Bray. Wordwell.
- Grogan, E. 2005b *The North Munster Project. Volume 2: The prehistoric landscape of North Munster*. Discovery Programme Monograph 6. Bray. Wordwell.
- Grogan, E., Condit, T., O'Carroll, F., O'Sullivan, A. and Daly, A. 1996 Tracing the late prehistoric landscape in North Munster. *Discovery Programme Reports* 4, 26–46.
- Grogan, E., O'Donnell, L. and Johnston, P. (eds) 2007 *The Bronze Age landscapes of the pipeline to the west*. Bray. Wordwell.
- Hartnett, P.J. 1971 The excavation of two tumuli at Fourknocks (sites II and III), Co. Meath. *Proceedings of the Royal Irish Academy* 71C, 35–89.
- Hencken, H. O'N. and Movius, H.L. 1934 The cemetery cairn of Knockast. *Proceedings of the Royal Irish Academy* 41C, 232–84.
- Ingold, T. 2000 *The perception of the environment: essays in livelihood, dwelling and skill*. London. Routledge.
- Last, J. 1998 Books of life: biography and memory in a Bronze Age barrow. *Oxford Journal of Archaeology* 17, 43–53.
- Lynch, F. 1993 *Excavations in the Brenig Valley, a Mesolithic and Bronze Age landscape*. CA Monograph 5. Aberystwyth. Cambrian Archaeological Association.
- Lynch, L. and O'Donnell, L. 2007 Cremation in the Bronze Age: practice, process and belief. In E. Grogan, L. O'Donnell and P. Johnston (eds), *The Bronze Age landscapes of the pipeline to the west*, 105–14. Bray. Wordwell.
- Lynn, C.J. 1974 The excavation of a ring-cairn in Carnkenny townland, Co. Tyrone. *Ulster Journal of Archaeology* 36–7, 17–31.
- Mizoguchi, K. 1993 Time in the reproduction of mortuary practices. *World Archaeology* 25, 223–35.
- Moore, M.J. 1987 *The archaeological inventory of County Meath*. Dublin. The Stationery Office.
- Mount, C. 1997a Early Bronze Age burial in south-east Ireland in the light of recent research. *Proceedings of the Royal Irish Academy* 97C, 101–93.
- Mount, C. 1997b Adolf Mahr's excavations of an Early Bronze Age cemetery at Keenoge, County Meath. *Proceedings of the Royal Irish Academy* 97C, 1–68.
- Mount, C. 1999 Excavation and environmental analysis of a Neolithic mound and Iron Age barrow cemetery at Rathdooney Beg, County Sligo, Ireland. *Proceedings of the Prehistoric Society* 65, 337–71.
- Mullins, G. 2007 Pagan or Christian? Excavation of a hilltop cemetery at Cross, Co. Galway. In J. O'Sullivan and M. Stanley (eds), *New routes to the past*, 101–10. NRA Monograph 4. Dublin. National Roads Authority.
- Mulrooney, G. 2008 An analysis of the spatial distribution of barrow cemeteries with a focus on the barrow landscape of the Plains of Boyle, Co. Roscommon.

- Unpublished MA thesis, University College Dublin.
- Nelis, D. 2002 Northern Motorway Site No. 3, Sheephouse, Co. Meath. Prehistoric enclosure. In I. Bennett (ed.), *Excavations 2000*, 265. Bray. Wordwell.
- Newman, C. 1997 *Tara. An archaeological survey*. Dublin. Royal Irish Academy/Discovery Programme.
- O'Brien, E. 1992 Pagan and Christian burial in Ireland during the first millennium AD: continuity and change. In N. Edwards and A. Lane (eds), *The early church in Wales and the west*, 130–7. Oxford. Oxbow.
- O'Brien, E. 1999 Excavations of a multi-period burial site at Ballymacaward, Ballyshannon, Co. Donegal. *Donegal Annual* 51, 56–61.
- O'Brien, W. 1992 Boulder burials: a later Bronze Age megalith tradition in south-west Ireland. *Journal of the Cork Historical and Archaeological Society* 97, 11–35.
- O'Brien, W. 1999 *Sacred ground: megalithic tombs in coastal south-west Ireland*. Bronze Age Studies 4. Department of Archaeology, National University of Ireland, Galway.
- Ó Carragáin, T. 2003 The architectural setting of the cult of relics in early medieval Ireland. *Journal of the Royal Society of Antiquaries of Ireland* 133, 130–76.
- O'Sullivan, A. and Harney, L. 2007 Early Medieval Archaeology Project: investigating the character of early medieval archaeological excavations, 1970–2002. Unpublished report for the Heritage Council.
- O'Sullivan, M. 2005 *Duma na nGiall. The Mound of the Hostages*. Bray. Wordwell.
- Raftery, B. 1981 Iron Age burials in Ireland. In D. Ó Corráin (ed.), *Irish antiquity: essays and studies presented to Professor M. J. O'Kelly*, 173–204. Cork. Tower Books.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 1995 The conundrum of Irish Iron Age pottery. In B. Raftery, V. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age: essays on fieldwork and museum research presented to Ian Mathieson Stead*, 149–56. Oxford. Oxbow.
- Raftery, J. 1939 The tumulus cemetery of Carrowjames, Co. Mayo; Part I—Carrowjames I. *Journal of the Galway Archaeological and Historical Society* 18, 157–67.
- Raftery, J. 1941 The tumulus cemetery of Carrowjames, Co. Mayo; Part II—Carrowjames II. *Journal of the Galway Archaeological and Historical Society* 19, 16–88.
- Read, C. 2000 Neolithic/Bronze Age cemetery site at Ballyconneely, Co. Clare. *Archaeology Ireland* 54, 28–9.
- Roche, H. 2002 Excavations at Ráith na Ríg, Tara. *Discovery Programme Reports* 6, 19–165.
- Rowlands, M. 1993 The role of memory in the transmission of culture. *World Archaeology* 25 (2), 141–51.
- Stevens, P. 2005 Killoran 10. In M. Gowen, J. Ó Néill and M. Phillips (eds), *The Lisheen Mine Archaeological Project 1996–8*, 288. Bray. Margaret Gowen and Co./Wordwell.
- Stevens, P. 2007 Burial and ritual in late prehistory in north Wexford: excavation of a ring-ditch cemetery in Ask townland. In J. O'Sullivan and M. Stanley (eds), *New routes to the past*, 35–46. NRA Monograph 4. Dublin. National Roads Authority.
- Swan, D.L. 1978 The Hill of Tara, County Meath: the evidence of aerial photography. *Journal of the Royal Society of Antiquaries of Ireland* 108, 51–66.
- Taylor, K. 2007 Rathcannon Middle Bronze Age cremation cemetery. In E. Grogan, L. O'Donnell and P. Johnston (eds), *The Bronze Age landscapes of the pipeline to the west*, 302–4. Bray. Wordwell.
- Waddell, J. 1988 Rathcroghan in Connacht. *Emania* 5, 5–18.
- Wilmot, G.F. 1939 Two Bronze Age burials at Carrowbeg North, Belclare, Co. Galway. *Journal of the Galway Archaeological and Historical Society* 18, 121–40.
- Woodward, A. 2000 *British barrows: a matter of life and death*. Stroud. Tempus.

The Champion's Portion: feasting in the Celtic pre-Roman Iron Age

Andrew P. Fitzpatrick

Introduction

The small board in Barry Raftery's Dublin office listing 'European lectures' offered the unassuming visitor no indication as to their wider significance. For recent generations of scholars of the European pre-Roman Iron Age, in particular that of the later first millennium BC, a time often equated with the Celts or La Tène period, the study of Ireland has been regarded as all but synonymous with Barry Raftery's own work. At meetings, exhibitions and lectures all across Europe he has championed the archaeology of Iron Age Ireland in its European context.

He has consistently made clear the broad parallelism of the Irish material with developments in the western and central continental European Iron Age (e.g. 1989; 1991a; 1992; 1993; 1994a; 2000) with an understanding informed and enriched by his extensive studies in Germany, particularly in Marburg. At the same time careful distinctions have been maintained between linguistic and archaeological evidence (e.g. 1989; 1991b; 1998), and between the classical descriptions of some Celts of the continental European Iron Age and the early Irish literature. As well as key excavations, almost all types of Iron Age object have been addressed in a series of individual studies, in a *catalogue raisonné* (Raftery 1983) and in magisterial syntheses (Raftery 1984; 1994b).

In many ways the Iron Age cauldrons of Ireland exemplify this careful scholarship as well as the difficulties that surround such finds, typically of bronze but with some objects—such as that from Altartate Glebe, Co. Monaghan—made of wood (Raftery 1980), while there is a miniature gold cauldron from the Broighter, Co. Derry, hoard (Raftery 1993; 1994b). Mainly recovered as apparently isolated finds from watery contexts, their chronology may well span much of the Iron Age but, in a characteristic phrase, this remains 'distressingly vague' (e.g. Raftery 2000, 6) and the contexts in which they were used remains uncertain. As the non-hillfort settlements of Iron Age Ireland remain an emerging area of study (Armit 2007) and cauldrons do not seem to have been placed in Iron Age burials, and indeed any metal vessels are rare (Raftery 1981;

1994b, 196, fig. 123), other types of context can presently add little to our understanding of the ways in which cauldrons such as that from Ballyedmond, Co. Galway, were used (Fig. 1).

Iron Age cauldrons are much less frequent than the Bronze Age examples so well known from the Dowris phase onwards (Eogan 1983; Gerloff 1986; Gomez de Soto 1993; Needham and Bowman 2005; Bowman and Needham 2007). As Barry Raftery has noted (1994b, 184), in being found in watery contexts the Irish Iron Age finds echo some famous finds from continental Europe, such as the cauldron found in the Duchov spring in the Czech Republic, which contained many of the almost 2,000 objects in the deposit, most of them brooches and bracelets, and the Gundestrup cauldron. This famous silver cauldron was found dismantled and buried in bog in Denmark in the Germanic world, far away from its probable place of manufacture in Thracia, modern Bulgaria (Bergquist and Taylor 1987; Kaul 1995; Kaul and Martens 1995; Kaul *et al.* 1991; though see Hachmann 1990).

In early Irish literature the Celtic cauldron is an essential element in the narration. It is a symbol of plenty, and amongst the many magical properties it possesses are healing and resurrection. Such powers have been thought to be consistent with deposition of Iron Age cauldrons in watery contexts in Ireland and beyond (e.g. Green 1998).

If the early Irish literature has been seen to provide a ready interpretation for the Irish Iron Age cauldrons, the evidence from the classical authors on which the Irish sources have been argued to draw so heavily has also played a key role in how continental European cauldrons and feasts have been interpreted (Nash 1976; Brunaux 2002):

'While dining, they [the Gauls] are served by their youngest grown-up children, both boys and girls. Beside them are hearths blazing with fire, with cauldrons and spits containing large pieces of meat. Brave warriors they honour with the finest portions of the meat, just as Homer introduces Ajax, honoured by the chieftains, when he conquered Hector in single combat.'

—Diodorus Siculus V, 26 (from Posidonios)

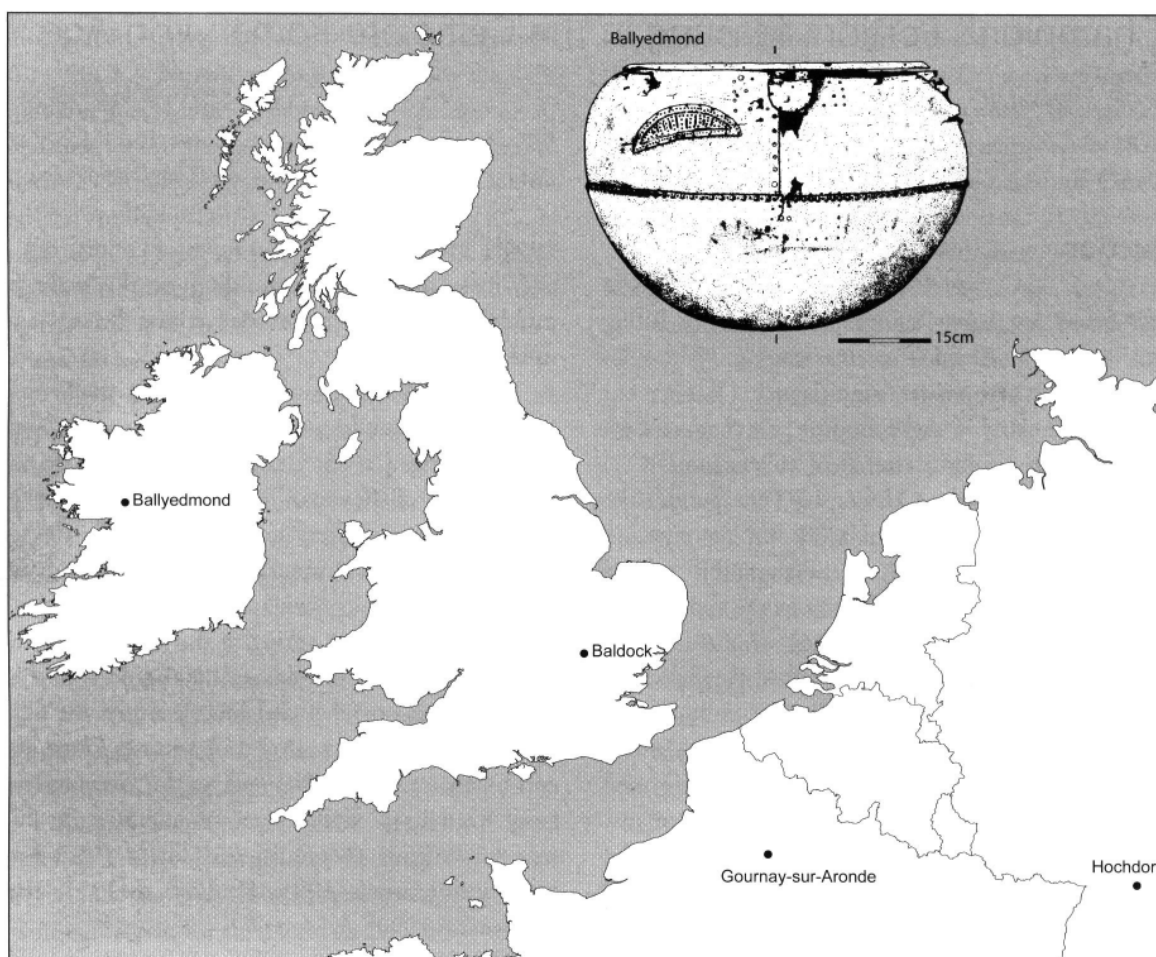


Fig. 1—Location of key sites discussed in text, and the Ballyedmond cauldron (after Raftery 1984, fig. 115).

Louernios . . . in an attempt to win popular favour rode in a chariot over the plains distributing gold and silver to the tens of thousands of Celts who followed him; moreover, he made a square enclosure one and a half miles each way, within which he filled vats with expensive liquor and prepared so great a quantity of food that for many days all who wished could enter and enjoy the feast prepared.'

—Athenaeus VI, 49 (from Posidionios)

But in practice most Iron Age cauldrons across continental Europe and Britain are represented by thin and often nondescript fragments of bronze or bits of their iron rims or handles that have been found on settlements (Jacobi 1974, 148) and also in sanctuaries. The evidence from burials but also from sanctuaries explored below provides valuable and explicitly ritual evidence for feasts from the sixth to the first

centuries BC. But even here the influence of the classical world on the origins of much modern scholarship and its indebtedness to concepts such as 'Hellenisation' and 'Romanisation' is clear.

Hochdorf

Perhaps the best archaeological evidence for the presentation of a single Iron Age feast comes from the Hallstatt D2 grave at Eberdingen-Hochdorf, Kreis Ludwigsberg, in Baden-Württemberg (Biel 1985; Krause 1996) (Fig. 2). Dating from between 540 and 510, this grave is one of the best-furnished burials of the European Iron Age, and is often taken to represent the highest levels of society in the 'West Hallstatt' region of eastern France, southern Germany and Switzerland. As evidenced by the building of hillforts, the

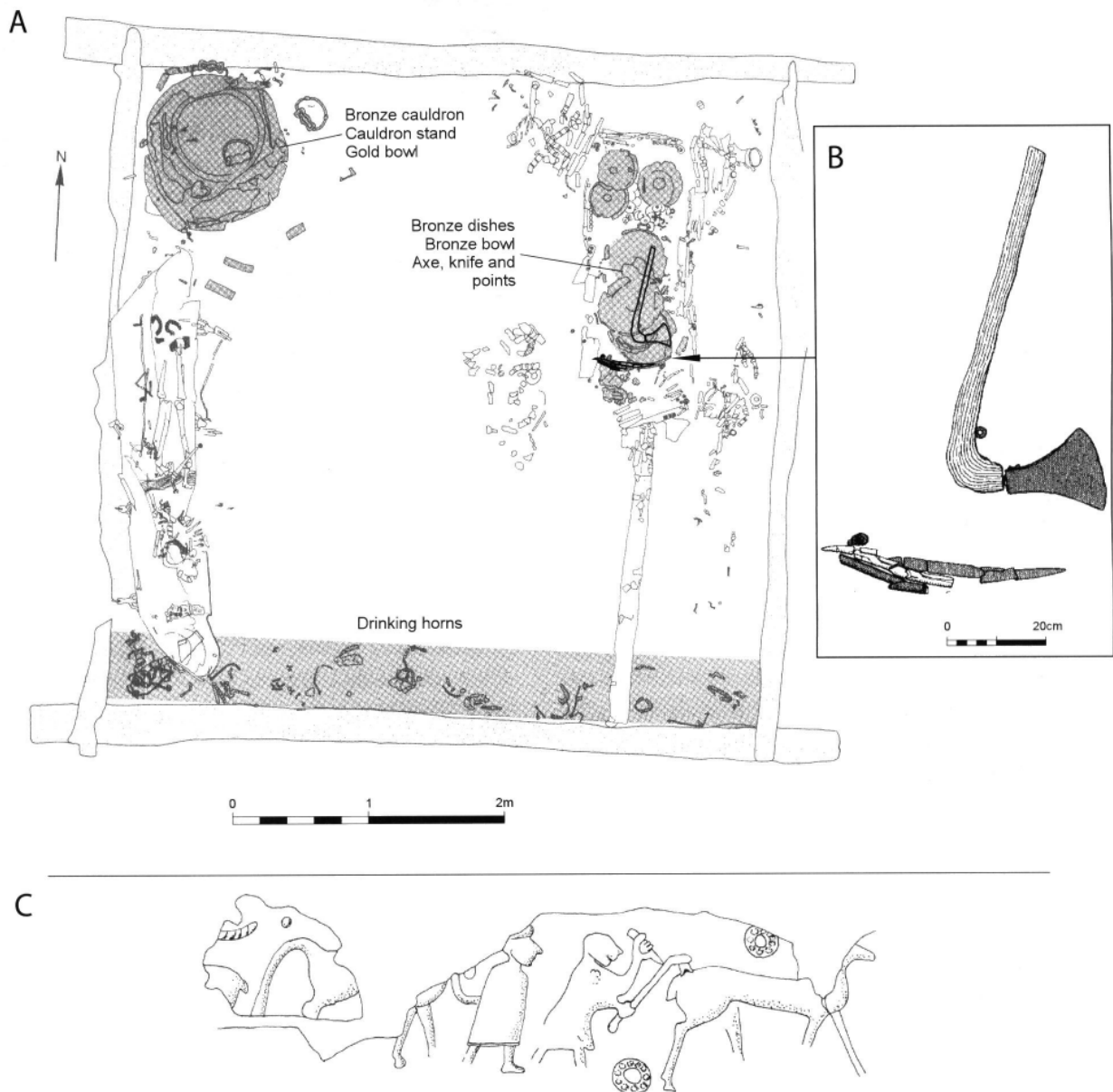


Fig. 2—(a) Plan of the Hochdorf burial (after Krausse 1996, Abb. 3); (b) inset of sacrificial tools (after Krausse 1996, Taf. 24); (c) inset showing the killing of a deer(?) on the *situla* from Eppan (after Krausse 1996, Abb. 216) (not to scale).

so-called *Fürstensitze*, and the presence of 'princely' burials like Hochdorf, the so-called *Fürstengräber*, in their vicinity, this time would appear to have been one of rapid social hierarchisation and centralisation (e.g. Arnold 1995; Brun 1987; Mohen *et al.* 1986).

Placed in a wooden chamber that was covered by a massive mound, the body of a tall and 'stout' 40–50-year-old man was placed on a bronze couch that was inspired by a

Greek *kline*. The walls of the chamber were hung, and the floor covered, with elaborately decorated textiles, coloured with dyes that used imported ingredients. The *Fürst* or 'prince' and many of the objects placed in the grave had also been wrapped in the textiles, though none, as reported initially, are of silk (Banck-Burgess 1999). The man was buried wearing, amongst other ornaments, a gold neck-ring, a gold arm-ring, a belt with a golden plaque or belt-plate,

and shoes that copied Mediterranean ones and were decorated with gold plates. He carried a dagger of bronze and iron that was covered in gold sheet. Beside him was a quiver full of arrows with thirteen iron arrowheads and one of bronze, and on his chest was a small bag containing three iron fish-hooks. His costume was fastened by gold brooches and by his head was a conical hat made of birch bark. Some of the goldwork is not of the very highest quality and the similarities between the punches used to decorate different objects suggest that many of the items were made at the same time, perhaps especially for the burial. The lavish use of gold and the size of the barrow have attracted much attention, but set out round the dead *Fürst* were the accoutrements for a great feast, sometimes seen as the archetypal Celtic feast.

By his feet was a great bronze cauldron that could hold 500 litres. It may well be of Greek workmanship, and its rim was decorated with figurines of lions whose lineage in classical art—with the exception of one which is a later addition of probably local manufacture—is well documented and understood. The cauldron stood on a wooden stand that was clad with iron. Within the cauldron, which pollen analyses have shown to have contained honey mead, was a small gold bowl. Suspended from the wall of the chamber behind his head were nine drinking-horns. Eight were made from the horns of aurochs, a species that by that time was already rare. The mouths of the horns were decorated with gold foil. The ninth, much larger, horn was made from iron. It had a golden rim and gold bands decorated the body. It could contain 5.5 litres of liquid and was suspended above the head of the dead *Fürst*. Hanging from the tail of the horn were bone pendants.

There was also a four-wheeled wooden wagon or cart that was decorated with sheet iron. On its surface were the yoke and horse harness, nine copper-alloy dishes and three basins. There was also an iron axe, a large iron knife, an iron point or tip and another point, this time of antler (Fig. 2b).

As portrayed by his mourners, the supreme status of the Hochdorf *Fürst* seems clear. Gold was used lavishly on the dead man's costume, and the relatively new metal of iron was used abundantly and, in the making of the drinking-horn, with virtuosity. The final feast seems to have been for nine people, each eating from individual dishes and drinking from individual horns. The presence of the *kline* on which someone, presumably the *Fürst*, would have reclined as well as the cauldron of Greek manufacture recall the Graeco-Italic *symposion*, or drinking party. This Medean Persian custom, which was presentable at court, was adopted into the Greek

world around 600 BC and in the western Mediterranean and Etruria in the first half of the sixth century (Rathje 1990). The use of drinking-horns in the Greek world may also be attributed to Medean Persian influence.

Nevertheless, although many well-furnished late Hallstatt and early La Tène graves contain items associated with eating and drinking, and metal dishes and cauldrons do occur commonly in the late Hallstatt examples, most graves contain only one or two imported objects. The burials at Hochdorf and Vix, Département Côte-d'Or, France, where an even larger Greek vessel, a *krater*, could contain 1,200 litres (Joffroy 1983; Arnold 1999; Knüsel 2002), are the exceptions and not the rule. Even in these burials the objects are rare and exotic, not the typical. The nature of banqueting and the *symposion* varied in time and place around the Mediterranean world, but the complete service necessary for what is often regarded as the canonical practice of a classical *symposion*, for example mixing bowls (*lebes*), is not found in graves of either late Hallstatt or early La Tène date (Bouloumié 1988; Krausse 1999a). This might be due to the representation of the individual in burial rites (Olivier 1999), with only a very few, such as the Hochdorf *Fürst*, being afforded the status of giving and hosting such meals.

Considerable emphasis has been placed on the role of imported wine in the political economy of the 'West Hallstatt' region and the many ways in which feasting can be used other than in the consumption of prestige goods (e.g. Arnold 1995; Dietler 1990; 1998; 2001; Fischer 1995), but its use was clearly selective. The imported goods had a role, but not a dominant one. In what Dietler has entitled 'commensal politics', eating together—or commensally—can be manipulated by the host as a means of defining power and status (Dietler 1996; 1998) through participation in feasts. Many types of feast bind the host and guest together in reciprocal obligations that can also effectively create and define inequalities (Mauss 1925; Goody 1982). Different styles of cuisine and consumption can also be a diacritical device to naturalise social ranking, and Dietler has termed feasts in which this is used 'diacritical feasts' (e.g. Dietler 1996; 1998; 2001). Here, elite feasts are as much about exclusion as inclusion; they are, as Goody has put it, 'hierarchical' or exclusive rather than 'hieratic' or inclusive.

As Dietler acknowledged, but as has often been overlooked subsequently in examining the West Hallstatt region, feasts are occasions for eating as well as drinking. The *Fürst* and his mourners knew something of the *symposion* and other habits of the Mediterranean world, but other *mores* are

represented in this banquet (Pare 1991; Krause 1996; 1999b; Olivier 1999).

The small gold bowl found in the cauldron has been interpreted as a *phiale*, a bowl used for libations (the ritual pouring of drink as an offering to a god). The cauldron itself contained mead and not Etruscan or Massiliote wine. The drinking-horns are indigenous, not imported Greek drinking-cups. The quiver of arrows, and presumably originally also a bow (since decayed), symbolise amongst other things warfare or the hunt (cf. Eibner 2004). The horns of the aurochs, a wild species, may also symbolise the hunt, as do the fish-hooks, which were for large fish. No animal bones were found in the grave, suggesting that, if any meat for this feast was placed in it, it had been taken off the bone.

It has been suggested that the axe, knife and iron and antler points placed on the wagon alongside the metal dishes and basins were used for the ritual sacrifice of animals (Fig. 2b). Such immolations, some using axes, are clearly shown in the naturalistic relief decoration of a number of examples of broadly contemporary situla art from Italy, Slovenia, Croatia and Austria. The sacrifice of animals had an important role in the classical world (e.g. Detienne and Vernant 1989), and in preparing for feasts offerings of both blood and meat were made to the gods before mortal men feasted on the remainder.

In studying the paraphernalia for eating and drinking in the grave, Krause (1996) concluded that the funeral rites at Hochdorf depict an idealised representation of that society, with the mourners of the *Fürstin* representing him and this final feast as combining political and religious power in a heroic way, either as a princely priest or priestly prince (Krause 1996; 1999a). In part this conclusion about supreme social status is based on the perceived ritual significance of the gold bowl and the objects considered to have been used in sacrificing animals for the funerary feast: the iron axes, the iron knife, the iron point and the antler point. In this regard as much emphasis is placed on food as on drink, and secular authority is in part seen to be based on sacred authority. In discussing the finds from Hochdorf, Krause compares an object from a later site in France: an axe from the middle La Tène sanctuary at Gournay-sur-Aronde.

Gournay-sur-Aronde

In use from the fourth century BC onwards, the sanctuary at

Gournay-sur-Aronde (Oise) in northern France dates from the time that followed the disappearance of the centralised and overtly hierarchical societies of the West Hallstatt region. These centuries are often characterised as having been more egalitarian.

Gournay is famous for the large number of swords, shields and spears that were ritually destroyed and deposited there as offerings to the gods, their physical fragmentation both rendering them beyond use by men and allowing their metaphysical essences to be transferred to other realms (Brunaux 1988; Müller 1990; cf. Fitzpatrick 2005). The evidence for animal sacrifice and feasting, however, is no less important (Brunaux 1988; Méniel 1992). In this regard it provides both a contrast to the highly codified rituals signified in funerary assemblages such as Hochdorf and a vivid insight into the role of animal sacrifice.

The first, fourth-century BC, phase of the sanctuary saw the creation of a rectilinear enclosure, some 45m by 38m, defined by a ditch and bank, with a series of posts standing within it. The ditch contained large numbers of animal bones and weapons. The second, mid-third-century BC, phase saw the addition, towards the centre of the enclosure, of a group of nine circular pits that defined a rectangular area, open at one end. The enclosed area lay to the rear of the timber posts. The rectangular area later became the site of an Iron Age timber temple (Fig. 3) and a Roman temple of stone.

At the centre of the space defined by the nine circular pits was a larger oval pit. The pits had timber linings and apparently were covered so that they could be reopened easily. Some of the most critical evidence is also the smallest. Three small cattle bones were found in the central pit, all small joint bones (sesamoids). These bones are otherwise absent from the large assemblage of animal bones, and the excavators argue that they could have fallen from the decomposing carcasses of cattle, the sacrificed remains of which were abundant in the enclosure ditch (Brunaux 1988; Méniel 1992). The central pit is the only one large enough to have held the carcass of a bull.

The evidence for the sacrifice of cattle is clear. These animals had been carefully selected by sex and age. In contrast to the remains from settlements, male animals dominated, and bulls were more frequent than oxen. Pathological indexes indicate that the bulls and oxen had worked as beasts of burden, but their age, around ten years, was much older than the remains typically found on a settlement—rarely more than five years. This suggests that these animals had been kept beyond a typical working life

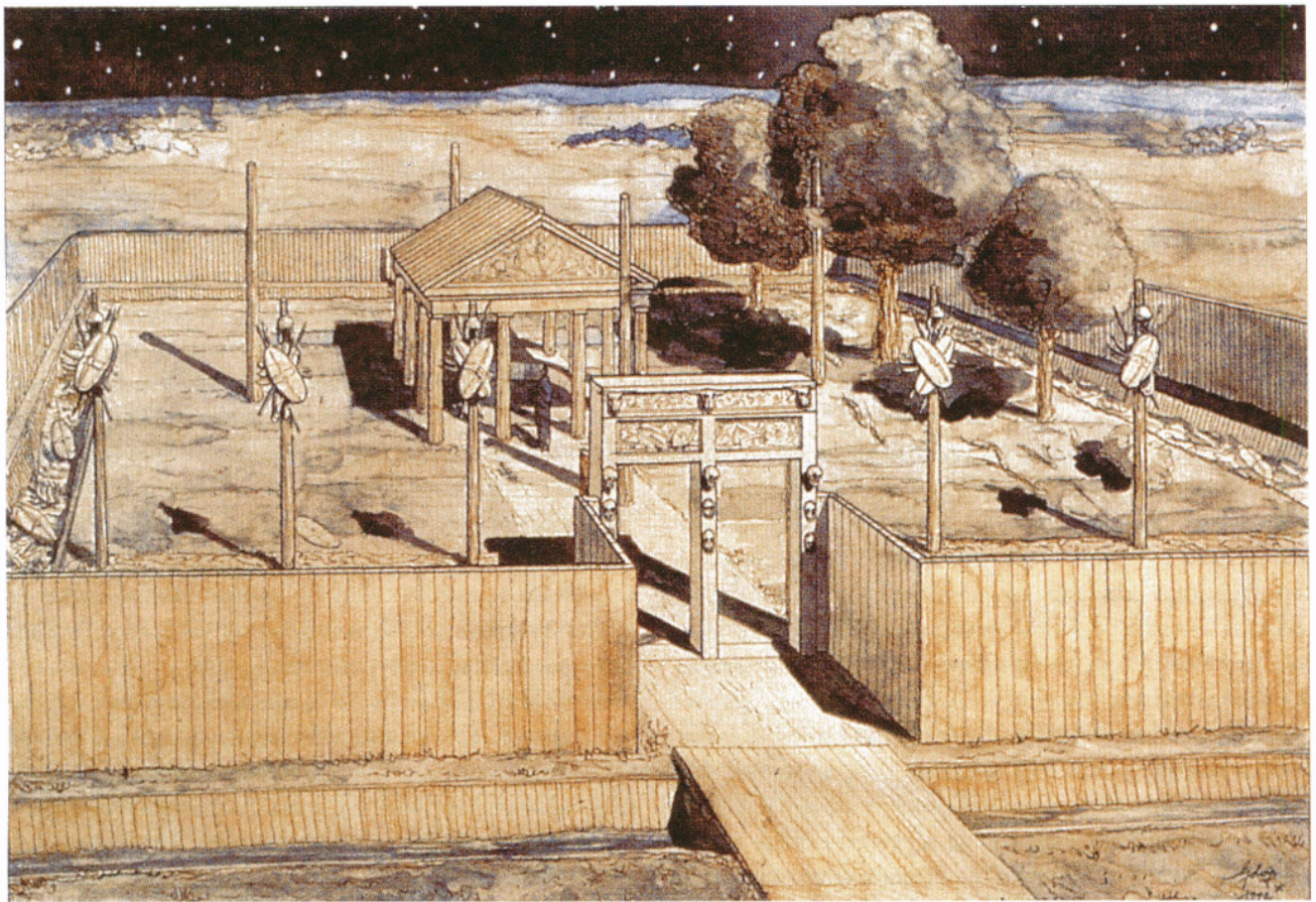


Fig. 3—The late Iron Age phase of the Gournay-sur-Arondes temple (after Brunaux 1995: painting by Jean-Claude Golvin, by permission of Jean-Louis Brunaux and Edition Errance).

and, on the basis of the number of animals represented, bulls may only have been sacrificed once a decade.

The cattle had been killed by blows to the nape of the neck, expertly and precisely administered using an axe. The angles of the axe marks show that the head of the animal was lowered at the time of sacrifice—perhaps, it has been suggested, while it was tethered to one of the posts in the enclosure. A few animals also had wounds on their forehead, which seem likely to have been caused by spears. The entrails may have been offered to the gods at this stage. Later, when the body had decomposed to the point where it was becoming disarticulated, the muzzle was cut by a sword blade. The angle of the cut shows that by this time the lower mandible of the bull had separated from the skull. The skulls then seem to have been either exposed or stored. The remains found in the enclosure ditches suggest that while the spinal chord was still articulated at this time, perhaps six months after sacrifice, decomposition was well advanced.

Deposits of large cattle bones were then placed in the enclosure ditch on either side of the entrance causeway. The weathering on these bones suggests that they were left in the open air for some time before being covered, perhaps at the time when the skulls were deliberately buried alongside them. Not all the bones are represented, however, and it seems likely that at least some were taken away from the sanctuary. In contrast to most of the other species of animals, only a single cattle bone bore a butchery mark and there was no indication of cooking.

Horses were also treated in a special way and not butchered, but young lambs and pigs were killed and butchered in a way similar to those whose remains are found on contemporary settlements. Most of these bones, many of which had knife marks, were from lambs aged between three and four months, and most were from the shoulder, which was twice as common as the leg. The skulls of these animals were not present at the site. The portions of pork that were

offered to the gods at the sanctuary came from more parts of the carcass, but again shoulders were twice as common as legs.

Reviewing this mass of fine-grained evidence, Brunaux proposed that religious specialists—that is to say, druids—were responsible for overseeing sacrifices, if not necessarily for undertaking them. In considering the sacrifice of animals, Méniel (1992) and Brunaux (1988) concluded that the bulls were carefully selected and kept beyond their normal age in order to be sacrificed and offered to chthonic deities who feasted on the carcasses in the central pit of the sanctuary. After a given time, and after further 'killing' of the animals, their remains were buried in the enclosure ditch that defined the sacred space. Horses were also treated specially. In contrast, mortals feasted on the prime cuts of meat from young domesticated animals. No wild animals were found.

A further contrast may be made with the animal remains from contemporary burials, for example at the small cemetery of Tartigny, also in Oise (Massy *et al.* 1986). Here pigs were the animal most commonly found but the prime meat joints were not deposited, perhaps being consumed by the mourners at the time of the funerary rituals. What could be regarded as butchery waste was deposited in the ditches that enclosed the cremation burials (Méniel 1992).

All of this suggests that, as with the objects perhaps used for sacrifice at Hochdorf, the sacrifice and consumption of animals was important for both mortals and the gods. Not only was the location where the butchered carcasses of the animals were deposited important but so also was the significance of the animals in life and the manner of their slaughter. Food was sacrificed in feasts for the gods, for the dead and for their mourners.

Baldock

One result of the excavations at Gournay-sur-Aronde has been the increased recognition of, and excavation at, Iron Age sanctuaries in France, many of which continued in use until the second and first centuries BC or the late La Tène (Arcelin and Brunaux 2003). The evidence from many of these sites is similar to that from Gournay. There are votive deposits, now often including coins as well as weaponry, and the continuing sacrifice of animals is represented by offerings of meat. A recently recognised aspect of these offerings in central France—not only at temples but also in enclosures of

the sort that Louernios is described by Athenaeus as having built to hold a feast of a type that Dietler would term a 'patron-role feast' (e.g. 1996; 2001)—is the consumption of very large quantities of imported Roman wine (Poux 2000; 2004; 2007; Poux and Nillesse 2003). Wine became an integral part of the ceremonies, which may have included libations to honour the gods and the dead. Amphorae were also deliberately broken. At these sanctuaries objects that can be associated with feasting are also found occasionally—remains of cauldrons, knives and meat-hooks—and these objects are also found in burials to the north in Belgic Gaul.

Roman wine was widely used in sanctuaries before amphorae were placed regularly in élite cremation burials, which are found across parts of north-west Europe in the late Iron Age. The scale of the importation of wine in the late La Tène was much, much greater than that in the West Hallstatt region but, in an apparent echo, many of the élite graves contain Italian wine amphorae and bronze vessels.

In some cases it is clear that the burials represent only one stage, and not necessarily the final one, of complex funerary rituals that may have involved feasting. For example, excavations beyond the burial mound at Clemency, Luxembourg, revealed that many Roman wine amphorae had been destroyed at and around the possible site of the funerary pyre (Metzler *et al.* 1991; Metzler 2002; Fitzpatrick 2000; Craven 2007).

The Roman bronze vessels, typically a jug and pan, found in these graves are often asserted—again in an apparent echo of the West Hallstatt region—to have been used as part of a wine service (e.g. Carver 2001; Ralph 2005, 40) and to indicate the practice of the *symposion*. These Roman bronze vessels, however, have long been interpreted as having been used for the washing of hands at the table, and perhaps even for sacrifice (Feugère and Rolley 1991; Rieckhoff 1998; Poux 2004). Despite this, as Poux has observed, what he considers to be the 'myth' of the late La Tène symposium has proved to be remarkably durable and, perversely, 'paradoxically fashionable' (2004, 238).

These graves also contain equipment used for cooking over an open fire: iron firedogs, square and circular frames to support the fire and spits for roasting meat, cauldrons and sometimes iron chains and tripods to suspend them from, and occasionally small iron grills. A few burials also contain knives that may have been used in the sacrifice of animals (Metzler *et al.* 1991, 147). The presence of this hearth furniture is taken as one of the defining characteristics of these élite burials (e.g. Piggott 1970; Manning 1983;

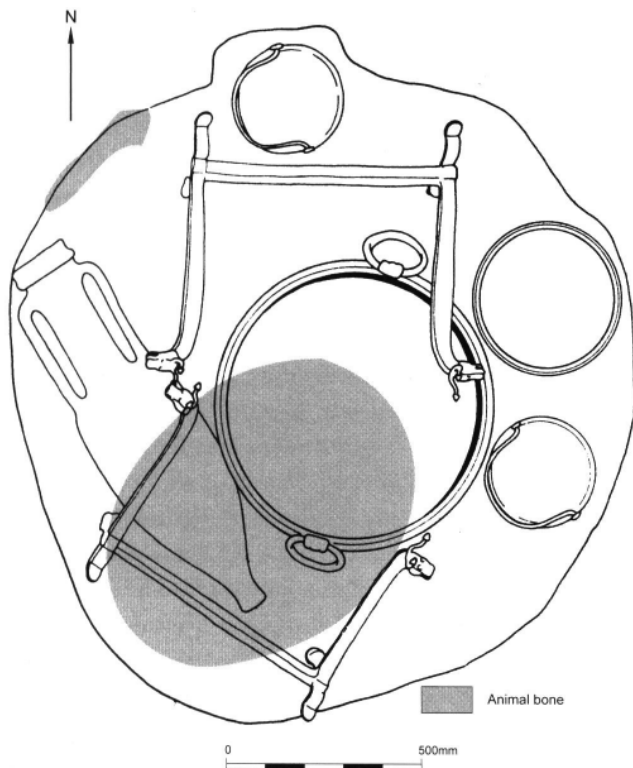


Fig. 4—The Baldock burial (after Stead and Rigby 1986, fig. 21, with additions).

Metzler *et al.* 1991; Ferdière and Villard 1993; Schönfelder 2002, 345–8; Fitzpatrick 2007).

The Baldock, Hertfordshire, burial is an example of these élite burials (Fig. 4). It was found at a place called, by a remarkable coincidence, The Tene (Stead and Rigby 1986, 51–61). The relatively small circular grave was shown to have contained two iron firedogs, an Italian wine amphora of Dressel 1A–B type, a bronze cauldron, two wooden buckets with metal fittings, two bronze basins, and the back and sides of a pig (the saddle) but not the legs or head. There were sherds from at least one pot, which was described as being large, but it was not clear whether it was a grave-good. Only a small amount of cremated bone was found, so the age and sex of the dead person could not be determined. The presence of bear phalanges amongst the cremated bone suggests that a bearskin was cremated with the dead person (Schönfelder 1994).

The firedogs would have supported a fire but also spits for cooking. The cauldron could have been used for cooking meat over the fire or for preparing drink, and the pair of

buckets may also have been used for preparing an indigenous drink such as beer, or for serving it. The pair of basins are likely to have been used for serving food. The pots could have been used for drinking. In France, at least, the pig had become the animal *par excellence* for use in funerary ceremonies, where it has been described as omnipresent (Méniel 1992, 124; 2002), and it may have been that at Baldock the bear, by then already a rare animal (Méniel 2002), was also consumed at this final feast.

The majority of these élite burials are usually asserted to be of males, but some, such as Dühren, have been sexed as female, primarily based on the presence of a mirror and jewellery (Polenz 1982). In this it echoes the late Hallstatt grave of the 'princess' of Vix (Knüsel 2002).

Although the appearance of these élite burials has often been seen as an index of hierarchisation stimulated by foreign trade, several of the earliest examples, which date from the second century BC (to La Tène C2), do not contain Roman imports (Ginoux 2007; Bouche *et al.* 2007). In those graves that do contain imports, the objects are not necessarily associated with wine or the table; for example, the Mailleraye-sur-Seine (Seine-Maritime), France, burial contains glass vases (Lequoy 1993). Burials of La Tène C2 that do contain imported metal vessels, such as Dühren (Rhine-Neckar Kreis), Germany (Polenz 1982), are currently the exception, not the rule.

On this basis, the type of feast portrayed in these burials would seem to be essentially 'Celtic' and Iron Age rather than Roman in origin and, in Dietler's terminology, a 'patron-role' feast. Where Roman bronze vessels are more frequent, it is in the already conquered *Provincia* of southern Gaul. Here, the regular discovery in graves of bronze buckets (*situla*) and serving ladles (*simpulum*) may suggest the closer familiarity with, and adoption of, Roman table manners. It appears, however, that, as earlier in the 'West Hallstatt' region, imported objects were not generic prestige goods and that the values and significance ascribed to them varied locally and perhaps individually.

As at Hochdorf, some Mediterranean goods were integrated within existing rites, but other commodities, such as olive oil, were not. Cauldrons such as the find from Ballyedmond, which were used for boiling meats or warming drinks, were not among the accoutrements of the symposium. Vessels of other materials are sometimes found, for example the ceramic strainer pot next to the bronze cauldron in Marcelave 'Le Chemin d'Ignaucourt' grave 9 (Somme), France (Ginoux 2007, 74). This 'Celtic' element may be

underlined by the presence of firedogs. Although firedogs occur in Italy in contexts contemporary with the late Hallstatt and occasionally north of the Alps too, most northern examples are later (Piggott 1970; Kruta Poppi 2007). The zoomorphic terminals on the earliest examples of these northern beasts may not, as is usually assumed, be naturalistic representations of cattle but of mythical beasts such as griffons, and this would be in keeping with the representations of fantastic animals in Celtic art (Charpy 2007).

A comparison of these late La Tène burials also reveals that, as in the West Hallstatt elite burials, there is no complete or stereotypical single feasting 'set'. For example, the Baldock burial is the only one in the regional group in south-east England to which it belongs to contain a cauldron, and it is the only one to contain animal meat on the bone. In continental Europe many graves that have firedogs do not contain cauldrons, while some burials contain cauldrons but no hearth furniture. Graves that contain the 'set' of cauldron, chains and tripod, such as La Mailleraye-sur-Seine, are the exception, and even here the representation of some elements is partial. There is also a clear correlation between the presence of hearth furniture and graves that also contain weaponry and chariots and/or horse equipment (Poux and Feugère 2002, 203–7).

The partial representation of hearth furniture in these graves suggests that only part of an object needed to be included to represent it—a form of *pars pro toto*—and this would be consistent with the often small quantities of cremated human bone selected for burial and the representation of chariotry by parts of chariots (cf. Metzler 2002; Perrin and Schönfelder 2003). Some scholars have considered the presence of feasting equipment to be more important than the presence of weaponry in symbolising martial prowess and power (Metzler-Zens and Metzler 1998; Metzler 2002). In either view, it is not the democracy of the classical symposium that is represented, but a statement of indigenous power.

In an interpretation influenced by Dietler's studies of the West Hallstatt region, Poux would see these feasts as helping to maintain a strict social hierarchy, with food used, in Dietler's words (1996, 87), as a 'prime political tool' (Poux 2004, 354; Poux and Feugère 2002, 219).

The feasting displayed in the funerary record can be seen in hierarchical terms, with a division between the graves of the 'organisers' and those who attended, the guests or 'convives' (Fig. 5). The graves of the 'organisers' contain objects indispensable for the holding of a collective feast:

hearth furniture, cauldrons, knives, bronze vessels and buckets with copper-alloy bindings, and wine amphorae. In addition, graves may also include other, more 'individual' objects: smaller knives, meat-hooks, metal strainer cups or Roman ladles (*simpulum*), the sets of Roman jugs and pans used for washing hands, iron-bound wooden buckets, pots, and occasionally drinking-horns. Less than twenty such graves are known. By contrast, the 'guests' are seen as relatively passive consumers. Although their graves may include some of the types of 'individual' objects placed in the graves of the 'organisers', they do not contain objects from the collective sphere and their graves may be subdivided on the basis of the number of objects buried with them. The situation would, of course, have been more subtle than an essay in hierarchisation can allow, but the essential point is that, unlike the apparent equality of the symposium, the late Iron Age funeral feast does not epitomise equality but inequality.

In this there is again a difference between north and south. In the southern regions of France described by Posidonios, the archaeological record demonstrates that large quantities of wine were consumed at sanctuaries and in feasts. In the northern regions the quantities of wine are small, and generally restricted to sanctuaries and the settlements and burials of the elite. Poux, following Dietler (1996, 98) and Goody (1982), would characterise the difference between some uses of feasting in the two regions as hieratic or inclusive on the one (southern) hand and hierarchic or exclusive on the other (northern) hand.

Conclusion

As Barry Raftery has repeatedly pointed out, there was great diversity across Iron Age Europe, in both time and place, and it is not the intent here to suggest a single 'timeless and traditional' 'Celtic' society (e.g. Raftery 1998; Fitzpatrick 1991; 1996; James 1999; Collis 2003). But the similarities in material culture across large areas remain to be explained, and a European perspective has the potential to enrich our understanding of insular affairs.

There is considerable evidence for feasting from settlements (e.g. Jones 2007), but amongst the best-documented individual feasts in the Iron Age of Celtic Europe are those seen in the late Hallstatt and the early La Tène in the West Hallstatt region, and in northern France, western Germany and south-eastern England in the late La

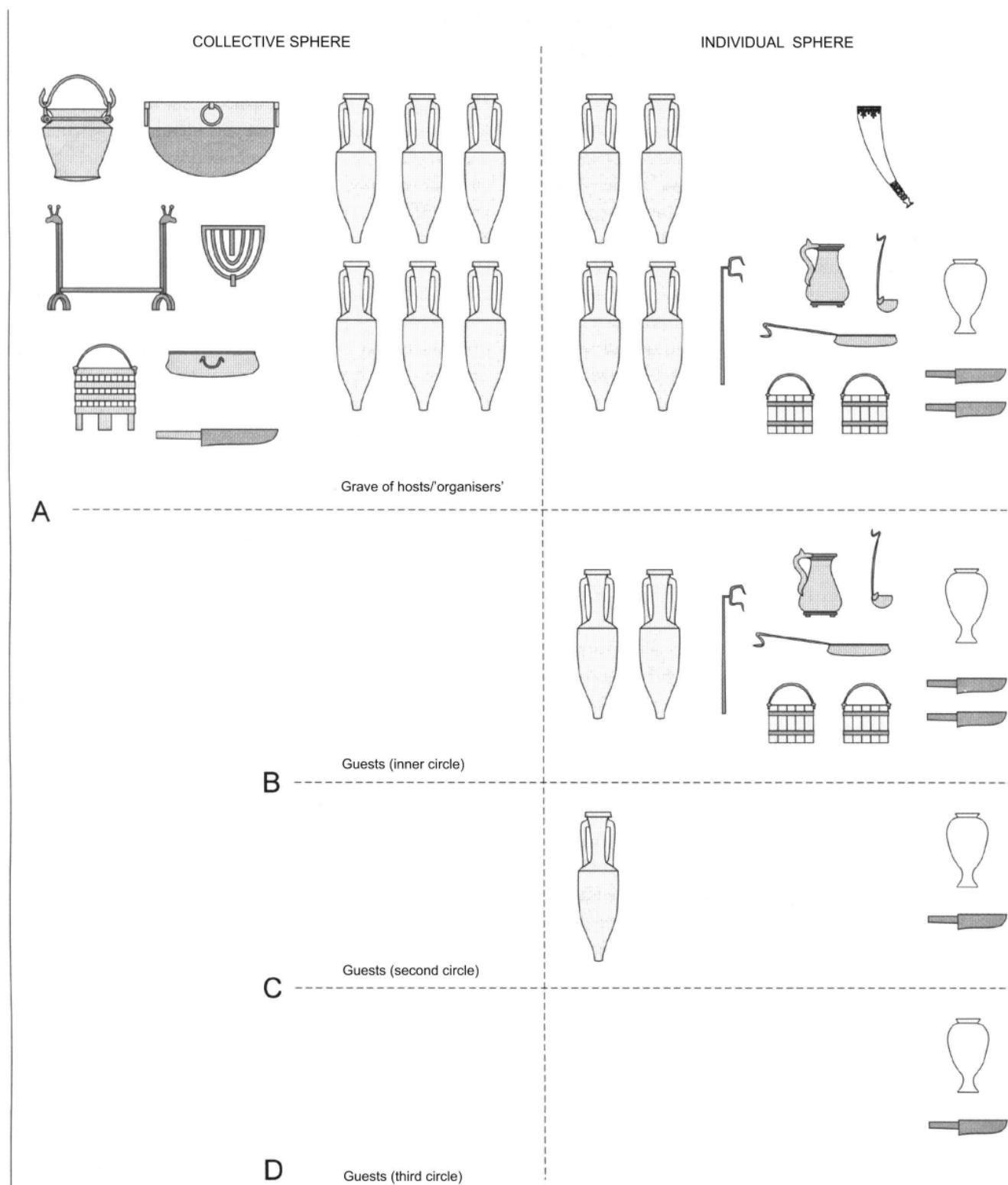


Fig. 5—The collective and the individual and the Celtic feast: organisers and '*convives*' (after Poux 2004, fig. 124).

Tène. Recent interpretations of this evidence have concentrated on the Mediterranean connections and the processes by which these local histories became entangled with larger structures of power. The classical origins of much western scholarship and their legacy have influenced the study of such colonial encounters, and world-system models and core-periphery systems can be argued to be heavily indebted to the study of the classical world (e.g. Dietler 1995; 1996; 1998; 2005). In the late Hallstatt and early La Tène period these connections might be characterised as colonial encounters. In the late La Tène many connections were, either directly or indirectly, with the military imperialism of Rome.

Despite these fundamental differences, in both cases the presence of goods imported from the Mediterranean world has been seen to represent the classical *symposion*, an interpretation that is often accommodated by suggestions that either all the necessary accoutrements are poorly represented or the need for them was only partially understood.

Although great emphasis has been placed on the adoption of foreign drinks, and this was clearly important, the evidence from the Iron Age funerary feasts examined here suggests that only selected exotic items were incorporated into traditional, or at least well-established, types of feasts. These feasts often involved cauldrons, and something of their significance can be seen in the way these vessels were sacrificed to the gods by being cast into or placed in bogs, or buried with the élite as they made their journey to the Otherworld.

In the written accounts of the late La Tène and the early Irish literature, the Champion's Portion, the choice portion of food, is a device for defining social roles. Unlike the classical *symposion* with its veneer of equality, as Athenaeus makes clear, some Iron Age feasts might also be compared with earlier Homeric banquets.

Some of the most important purposes of these feasts seem to have been to renew or replace the social order that had been altered by death and to maintain or increase social inequalities of commensal politics or hospitality. Interpretations of the social order might be expressed slightly differently, as a retinue or *Gefolgschaft* in both the Hallstatt and late La Tène (Krause 1996, 345; Schönfelder 2002, 348) or as 'guests' (Poux 2004), but the relationships and interdependencies are very similar. In neither period was there necessarily a clear separation between sacred and profane authority. The importance of the sacrifice and

slaughter of animals and the sharing of meat between gods and men, some perhaps cooked and some uncooked, can be seen in both the funeral feast and the sanctuary. In both of these explicitly ritual contexts, idealised forms of society were enacted, representing a microcosm of how the world was to be understood.

References

- Arcelin, P. and Brunaux, J.-L. 2003 Cultes et sanctuaires en France à l'âge du Fer. *Gallia* 60, 1–268.
- Armit, I. 2007 Social landscapes and identity in the Irish Iron Age. In C. Haselgrove and T. Moore (eds), *The later Iron Age in Britain and beyond: recent work*, 130–9. Oxford. Oxbow.
- Arnold, B. 1995 The material culture of social structure: rank and social status in early Iron Age Europe. In B. Arnold and D. B. Gibson (eds), *Celtic chieftdom, Celtic state*, 43–52. Cambridge University Press.
- Arnold, B. 1999 'Drinking the feast': alcohol and the legitimization of power in Celtic Europe. *Cambridge Archaeological Journal* 9 (1), 71–93.
- Banck-Burgess, J. 1999 *Hochdorf IV. Die Textilfunde aus dem späthallstattzeitlichen Fürstengrab von Eberdingen-Hochdorf (Kreis Ludwigsburg) und weitere Grabtextilien aus hallstatt- und latènezeitlichen Kulturgruppen*. Forschungen und Berichte zur Vor- und Frühgeschichte Baden-Württemberg 70. Stuttgart. Theiss.
- Bergquist, A. and Taylor, T. 1987 The origin of the Gundestrup cauldron. *Antiquity* 61, 10–24.
- Biel, J. 1985 *Der Keltenfürst von Hochdorf*. Stuttgart. Theiss.
- Bouche, K., Blancquaert, G. and Ginoux, N. 2007 Raillencourt-sur-Orre: un ensemble aristocratique de la fin de l'Âge du Fer. In V. Kruta and G. Leman-Delérie (eds), *Feux des morts, foyers des vivants. Les rites et symboles du feu dans les tombes de l'Âge du Fer et de l'époque romaine*, 13–34. Revue de Nord Hors série/Collection Art et Archéologie 11. Lille.
- Bouloumié, B. 1988 Le symposion greco-étrusque et l'aristocratie celtique. In J.-P. Mohen, A. Duval and C. Eluère (eds), *Les princes celtes et la Méditerranée*, 343–83. Paris. La Documentation Française (Recontres de l'École du Louvre).
- Bowman, S. and Needham, S. 2007 The Durnaverney and Little Thetford flesh-hooks and their position within the Later Bronze Age Atlantic zone feasting complex.

- Antiquaries Journal* 87, 53–108.
- Brun, P. 1987 *Princes et princesses de la Celtique. Le premier Âge du Fer (850–450 av. J.C.)*. Paris. Errance.
- Brunaux, J.-L. 1988 *The Celtic Gauls: gods, rites and sanctuaries*. London. Seaby. (First published in French, 1986.)
- Brunaux, J.-L. 1995 Die keltischer Heiligtümer Nordfrankreichs. In A. Haffner (ed.), *Heiligtümer und Opferkulte der Kelten*, 55–74. Stuttgart. Theiss.
- Brunaux, J.-L. 2002 Les guerriers à la table des dieux. Les fragments de Posidonios dans les Deipnosophistes d'Athénée. In P. Méniel and B. Lambot (eds), *Découvertes récentes de l'âge du Fer dans le massif des Ardennes et ses marges: repas des vivants et nourriture pour les morts en Gaule. Actes du XXVe colloque de l'A.F.E.A.F. Charleville Mézières*, 237–84. Mémoire de la Société Archéologique Champenoise 16. Reims.
- Carver, E. 2001 *The visibility of imported wine and its associated accoutrements in later Iron Age Britain*. British Archaeological Reports, British Series 325. Oxford.
- Charpy, J.-J. 2007 La tombe aux landiers de Beine 'Le Montéquex' (Marne) et la représentation du béliet à bec de griffon. In V. Kruta and G. Leman-Delérie (eds), *Feux des morts, foyers des vivants. Les rites et symboles du feu dans les tombes de l'Âge du Fer et de l'époque romaine*, 97–106. Revue de Nord Hors série/Collection Art et Archéologie 11. Lille.
- Collis, J.R. 2003 *The Celts. Origins, myths, inventions*. Stroud. Tempus.
- Craven, P.E. 2007 *The final feast. An examination of the significant Iron Age amphora burials in north-west Europe in relation to the Mediterranean symposium and feasting ritual*. British Archaeological Reports, International Series 1605. Oxford.
- Detienne, M. and Vernant, J.-P. (eds) 1989 *The cuisine of sacrifice amongst the Greeks*. University of Chicago Press.
- Dietler, M. 1990 Driven by drink: the role of drinking in the political economy and the case of early Iron Age Europe. *Journal of Anthropological Archaeology* 9, 352–406.
- Dietler, M. 1995 The Cup of Gyptis: rethinking the colonial encounter in early Iron Age western Europe and the relevance of world-systems models. *Journal of European Archaeology* 32, 89–111.
- Dietler, M. 1996 Feasts and commensal politics in the political economy. Food, power and status in prehistoric Europe. In P. Wiessner and W. Schiefenhövel (eds), *Food and the status quest: an interdisciplinary perspective*, 87–125. Oxford. Berghahn.
- Dietler, M. 1998 Rituals of commensality and the politics of state formation in the 'princely' societies of Early Iron Age Europe. In M. Bats and P. Ruby (eds), *Les princes de la protohistoire et l'émergence de l'état. Actes de table ronde internationale de Naples (1994)*, 135–52. Collections Centre Jean Bérard 17/Collections de l'École Française de Rome 252. Naples.
- Dietler, M. 2001 Theorizing the feast. Rituals of consumption, commensal politics, and power in African contexts. In M. Dietler and B. Hayden (eds), *Feasts. Archaeological and ethnographic perspectives on food, politics and power*, 65–113. Washington. Smithsonian Institution Press.
- Dietler, M. 2005 The archaeology of colonization and the colonization of archaeology. Theoretical challenges from an ancient Mediterranean colonial encounter. In G. Stein (ed.), *The archaeology of colonial encounters: comparative perspectives*, 33–68. Santa Fe. S.A.R. Press.
- Eibner, A. 2004 Die Bedeutung der Jagd im Leben der eisenzeitlichen Gesellschaft—dargestellt anhand der Bildüberlieferungen. In H. Heftner and K. Tomaschitz (eds), *Ad Fontes! Festschrift für Gerhard Dobesch zum Fünfundsiebzehnten Geburtstag am 15. September 2004*, 620–44. Vienna. Im Eigenverlag der Herausgeber [privately published by the editors].
- Eogan, G. 1983 *The hoards of the Irish Later Bronze Age*. University College Dublin.
- Ferdière, A. and Villard, A. 1993 *La tombe augustéenne de Fléré-la-Rivière (Indre) et les sépultures aristocratiques de la cité des Bituriges*. Mémoire 2 Musée d'Argentomagus/7 Supplément Revue Archéologique du Centre de la France. Saint-Marcel.
- Feugère, M. and Rolley, C. (eds) 1991 *La vaisselle tardo-républicaine en bronze. Actes de la table ronde CNRS, Lattes avril 1990*. Dijon. Université de Bourgogne, Centre de Recherches sur les techniques gréco-romaines.
- Fischer, F. 1995 The early Celts of west central Europe: the semantics of social structure. In B. Arnold and D. B. Gibson (eds), *Celtic chieftdom, Celtic state*, 34–40. Cambridge University Press.
- Fitzpatrick, A.P. 1991 'Celtic' (Iron Age) religion: traditional and timeless? *Scottish Archaeological Review* 8, 123–9.
- Fitzpatrick, A.P. 1996 'Celtic' Iron Age Europe: the theoretical basis. In P. Graves-Brown, S. Jones and C.

- Gamble (eds), *Cultural identity and archaeology: the construction of European communities*, 238–55. London. Routledge. [Reprinted 2007 in R. Karl and D. Stifter (eds), *The Celtic world. Volume I. Theory in Celtic studies*, 41–58. London and New York. Routledge.]
- Fitzpatrick, A.P. 2000 Sequence, ritual and structure in Late Iron Age mortuary practices in north-west Europe. In J. Pearce, M. Millett and M. Struck (eds), *Burial, society and context in the Roman world*, 15–29. Oxford. Oxbow.
- Fitzpatrick, A.P. 2005 Gifts for the golden gods: torques and coins. In C. Haselgrove and D. Wigg-Wolf (eds), *Iron Age coinage and ritual practices*, 157–82. Studien zu Fundmünzen der Antike 20. Mainz. Zabern.
- Fitzpatrick, A.P. 2007 The fire, the feast and the funeral. Late Iron Age burial rites in southern England. In V. Kruta and G. Leman-Delérie (eds), *Feux des morts, foyers des vivants. Les rites et symboles du feu dans les tombes de l'âge du fer et de l'époque romaine*, 123–42. Revue de Nord Hors série/Collection Art et Archéologie 11. Lille.
- Gerloff, S. 1986 Bronze Age class A cauldrons: typology, chronology and origins. *Journal of the Royal Society of Antiquaries of Ireland* 116, 84–115.
- Ginoux, N. 2007 Les élites du Nord de la Gaule (II^e–I^{er} s. av. J.-C.). Les tombes à utensiles de feu de trois nécropoles de Gaule Belgique: Cizancourt 'La Sole des Galets', Marcelave 'Le Chemin d'Ignaucourt' (Somme) et Raillencourt-sur-Olle (Nord). In V. Kruta and G. Leman-Delérie (eds), *Feux des morts, foyers des vivants. Les rites et symboles du feu dans les tombes de l'âge du Fer et de l'époque romaine*, 65–85. Revue de Nord Hors série/Collection Art et Archéologie 11. Lille.
- Gomez de Soto, J. 1993 Cooking for the élite: feasting equipment in the Late Bronze Age. In C. Scarre and F. Healy (eds), *Trade and exchange in prehistoric Europe*, 191–7. Oxford. Oxbow.
- Goody, J. 1982 *Cooking, cuisine and class. A study in comparative sociology*. Cambridge University Press.
- Green, M.J. 1998 Vessels of death: sacred cauldrons in archaeology and myth. *Antiquaries Journal* 78, 63–84.
- Hachmann, R. 1990 Gundestrup-Studien. Untersuchungen zu den spätkeltischen Grundlagen der frühgermanischen Kunst. *Bericht der Römisch-Germanischen Kommission* 71, 565–903.
- Jacobi, G. 1974 *Werkzeug und Gerät aus dem Oppidum von Manching*. Die Ausgrabungen in Manching 5. Stuttgart. Steiner.
- James, S. 1999 *The Atlantic Celts: ancient people or modern invention?* London. British Museum.
- Joffroy, R. 1983 *La tombe princière de Vix (Cote-D'Or)*. Châtillon-sur-Seine. Boudrot.
- Jones, M. 2007 A feast of Beltain? Reflections on the rich Danebury harvests. In P. de Jersey, C. Gosden, H. Hamerow and G. Lock (eds), *Communities and connections: essays in honour of Barry Cunliffe*, 142–53. Oxford University Press.
- Kaul, F. 1995 The Gundestrup cauldron reconsidered. *Acta Archaeologica* 66, 1–38.
- Kaul, F. and Martens, J. 1995 Southeast European influences in the early Iron Age of southern Scandinavia. Gundestrup and the Cimbri. *Acta Archaeologica* 66, 111–61.
- Kaul, F., Marazov, I., Best, J. and de Vries, N. 1991 *Thracian tales on the Gundestrup Cauldron*. Amsterdam. Najade.
- Knüsel, C.J. 2002 More Circe than Cassandra: the princess of Vix in ritualized social context. *European Journal of Archaeology* 5, 275–308.
- Krause, D. 1993 Trinkhorn und Kline. Zur griechischen Vermittlung orientalischer Trinksitten an die frühen Kelten. *Germania* 71, 188–97.
- Krause, D. 1996 *Hochdorf III. Das Trink und Speiseservice aus dem späthallstattzeitlichen Fürstengrab von Eberdingen-Hochdorf, Kreis Ludwigsburg*. Forschungen und Berichte zur Vor- und Frühgeschichte Baden-Württemberg 64. Stuttgart.
- Krause, D. 1999a Der 'Keltenfürst' von Hochdorf: Dorfältester oder Sakralkönig? Anspruch und Wirklichkeit der sogenannten kulturanthropologischen Hallstatt-Archäologie. *Archäologisches Korrespondenzblatt* 29, 339–58.
- Krause, D. 1999b Le symposium aristocratique pendant le Hallstatt final et La Tène ancienne dans le sud-ouest de l'Allemagne. In A. Villes and A. Bataille-Melkon (eds), *Fastes des Celtes entre Champagne et Bourgogne aux VIIe–IIe siècles avant notre ère. Actes de Colloque de l'A.F.E.A.F. Troyes, 25–27 mai 1995*, 181–7. Mémoire de la Société Archéologique Champenoise 15. Reims.
- Kruta Poppi, L. 2007 Strumenti legati al fuoco nelle necropoli protostoriche d'Italia. In V. Kruta and G. Leman-Delérie (eds), *Feux des morts, foyers des vivants. Les rites et symboles du feu dans les tombes de l'âge du Fer et de l'époque romaine*, 145–56. Revue de Nord Hors série/Collection Art et Archéologie 11. Lille.

- Lequoy, M.-C. 1993 Le dépôt funéraire de la Mailleraye-sur-Seine (Seine-Maritime). In D. Cliquet, M. Remy-Watte, V. Guichard and M. Vaginay (eds), *Les Celtes en Normandie. Les rites funéraires en Gaule (III^e–I^{er} siècle avant J.-C.)*. Actes du 14^e colloque de l'Association Française pour l'Étude de l'âge du Fer, Evreux—mai 1990, 121–33. Revue Archéologique de l'Ouest Supplément 6. Rennes.
- Manning, W.H. 1983 The cauldron chains of Iron Age and Roman Britain. In B. R. Hartley and J. S. Wacher (eds), *Rome and her northern provinces*, 132–54. Gloucester. Alan Sutton.
- Massy, J.-L., Mantel, E., Méniel, P. and Rapin, A. 1986 La nécropole gauloise de Tartigny. *Revue Archéologique de Picardie* 3–4, 13–81.
- Mauss, M. 1925 *The gift. Forms and functions of exchange in archaic societies*. London. Routledge and Kegan Paul. [Revised and corrected translation 1969.]
- Méniel, P. 1992 *Les sacrifices d'animaux chez les Gaulois*. Paris. Errance.
- Méniel, P. 2001 *Les Gaulois et les animaux: élevage, repas et rites*. Paris. Errance.
- Méniel, P. 2002 La chasse en Gaule, une activité aristocratique? In V. Guichard and F. Perrin (eds), *L'aristocratie celte à la fin de l'âge du Fer (II^e s. av. J.-C., I^{er} s. ap. J.-C.)*. Actes de la table ronde des 10 et 11 juin 1999, Glux-en-Glenne, 223–30. Bibracte 5. Glux-en-Glenne.
- Metzler, J. 2002 Réflexion sur les sépultures aristocratiques en pays trévire. In V. Guichard and F. Perrin (eds), *L'aristocratie celte à la fin de l'âge du Fer (II^e s. av. J.-C., I^{er} s. ap. J.-C.)*. Actes de la table ronde des 10 et 11 juin 1999, Glux-en-Glenne, 175–86. Bibracte 5. Glux-en-Glenne.
- Metzler, J., Waringo, R., Bis, R. and Metzler-Zens, N. 1991 *Clemency et les tombes de l'aristocratie en Gaule Belgique*. Dossiers d'Archéologie du Musée National d'Histoire et d'Art 1. Luxembourg.
- Metzler-Zens, N. and Metzler, J. 1998 Die spätkeltische Aristokratie in Gallien; Überlegungen zur Selbstdarstellung einer sozialen Gruppe. In A. Müller-Karpe, H. Brandt, H. Jöns, D. Krauß and A. Wigg (eds), *Studien zur Archäologie der Kelten, Römer und Germanen in Mittel- und Westeuropa. Alfred Haffner zum 60. Geburtstag gewidmet*, 417–27. Rahden/Westf. Marie Leidorf.
- Mohen, J.P., Duval, A. and Eluère, C. (eds) 1986 *Les princes celtes et la Méditerranée*. Paris. Recontres de l'École du Louvre/La documentation française.
- Müller, F. 1990 *Der Massenfund von der Tiefenau bei Bern: Zur Deutung latènezeitlicher Sammelfunde mit Waffen*. Antiqua 20. Basel.
- Nash, D. 1976 Reconstructing Poseidonios's Celtic ethnography; some considerations. *Britannia* 7, 111–26.
- Needham, S. and Bowman, S. 2005 Flesh-hooks, technological complexity and the Atlantic Bronze Age feasting complex. *European Journal of Archaeology* 8, 93–136.
- Olivier, L. 1999 The Hochdorf 'princely' grave and the question of the nature of archaeological funerary assemblages. In T. Murray (ed.), *Archaeology and time*, 109–38. London. Routledge.
- Pare, C. 1991 *Fürstensitze*, Celts and the Mediterranean world. Developments in the West Hallstatt Culture in the 6th and 5th centuries BC. *Proceedings of the Prehistoric Society* 57, 183–202.
- Perrin, F. and Schönfelder, M. 2003 *La tombe à char de Verna, Isère: témoignage de l'aristocratie celte en territoire allobroge*. Documents de l'Archéologie en Rhône-Alpes et Auvergne 4. Lyon.
- Piggott, S. 1970 Firedogs in Iron Age Britain and beyond. In J. Boardman, M. A. Brown and T. G. E. Powell (eds), *The European community in prehistory. Studies in honour of C. F. C. Hawkes*, 243–70. London. Routledge and Kegan Paul.
- Polenz, H. 1982 Münzen in latènezeitlichen Gräbern Mitteleuropas aus der Zeit zwischen 300 und 50 vor Christi Geburt. *Bayerische Vorgeschichtsblätter* 47, 27–222.
- Poux, M. 2000 Espaces votifs—espaces festifs. Banquets et rites de libation en contexte de sanctuaires et d'enclos. In J.-L. Brunaux (ed.), *Des Enclos, pourquoi faire? Actes du table-ronde de Ribemont-sur-Ancre (1989)*, 217–32. Revue Archéologique de Picardie 1/2. Amiens.
- Poux, M. 2004 *L'âge du vin. Rites de boisson, festins et libations en Gaule indépendante*. Protohistoire européenne 8. Montagnac.
- Poux, M. 2007 Blutige Opfer und Weinspenden in Gallien am Beispiel des spätkeltisch-römischen Heiligtums von Corent (Frankreich). In S. Groh and H. Sedlmayer (eds), *Blut und Wein. Keltisch-römische Kultpraktiken*, 11–33. Protohistoire européenne 10. Montagnac.
- Poux, M. and Feugère, M. 2002 Le festin. Miroir privilégié

- des élites celtiques de Gaule indépendante. In V. Guichard and F. Perrin (eds), *L'aristocratie celtique à la fin de l'âge du Fer (IIe s. av. J.-C., Ier s. ap. J.-C.)*. Actes de la table ronde des 10 et 11 juin 1999, Glux-en-Glenne, 199–222. Bibracte 5. Glux-en-Glenne.
- Poux, M. and Nillesse, O. 2003 Le vin, le fer et le sang. À propos d'un texte de Polybe (II, 19): le rôle du vin importé dans les cultes indigènes de la fin de l'âge du fer. In B. Mandy and A. de Saulce (eds), *Les marges de l'Armorique à l'Âge du Fer: archéologie et histoire: culture matérielle et sources écrites*. XXIII^e colloque de l'Association Française pour l'Étude de l'Âge du Fer, Nantes, 13–16 mai 1999, 293–308. Revue Archéologique de l'Ouest, Supplément 10. Rennes.
- Raftery, B. 1980 Iron Age cauldrons in Ireland. *Archaeologia Atlantica* 3, 57–80.
- Raftery, B. 1981 Iron Age burials in Ireland. In D. Ó Corráin (ed.), *Irish antiquity: essays and studies presented to Professor M. J. O'Kelly*, 173–204. Cork. Tower Books.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1989 Barbarians to the West. In J.C. Barrett, A.P. Fitzpatrick and L. Macinnes (eds), *Barbarians and Romans in north-west Europe*, 117–52. British Archaeological Reports, International Series 471. Oxford.
- Raftery, B. 1991a Irland und der Kontinent während der Latènezeit. In O.-H. Frey, H. Roth and C. Dobiat (eds), *Marburger Kolloquium 1989. Wolfgang Dehn zum 80. Geburtstag*, 49–64. Veröffentlichungen des Vorgeschichtlichen Seminars Marburg, Sonderband 7. Buch am Erlbach. Marie Leidorf.
- Raftery, B. 1991b The Celtic Iron Age in Ireland: problems of origin. *Emania* 9, 28–32.
- Raftery, B. 1992 Celtas, cultura y colonización: reflexiones sobre la Edad del Hierro en Irlanda. In M. Almagro-Gorbea (ed.), *Los Celtas: Hispania y Europa*, 91–120. Madrid. Universidad Complutense.
- Raftery, B. 1993 La statuaire en bois et pierre de l'âge du Fer irlandais. In J. Briard and A. Duval (eds), *Les représentations humaines du néolithique à l'Âge du Fer. Actes des 115 Congrès national des Sociétés Savantes, Avignon, 1990*, 253–64. Paris. Comité de Travaux Historiques et Scientifiques.
- Raftery, B. 1994a Reflections on the Irish Scabbard Style. In C. Dobiat (ed.), *Festschrift für Otto-Herman Frey zur 65. Geburtstag*, 475–92. Marburger Studien zur Vor- und Frühgeschichte 16. Marburg. Hitzeroth.
- Raftery, B. 1994b *Pagan Celtic Ireland. The enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, B. 1998 Kelten und Keltizismus in Irland: Die archäologischen Belege. In A. Müller-Karpe, H. Brandt, H. Jöns, D. Krauß and A. Wigg (eds), *Studien zur Archäologie der Kelten, Römer und Germanen in Mittel- und Westeuropa. Alfred Haffner zum 60. Geburtstag gewidmet*, 465–76. Rahden/Westf. Marie Leidorf.
- Raftery, B. 2000 A bit too far: Ireland's Transylvanian link in the later Iron Age. In A. P. Smyth (ed.), *Seanchas. Studies in early and medieval Irish archaeology, history and literature in honour of Francis J. Byrne*, 1–11. Dublin. Four Courts.
- Ralph, S. 2005 Eat, drink and be Roman? Feasting in Later Iron Age and Early Roman Britain. *Archaeological Review from Cambridge* 20, 32–52.
- Rathje, A. 1990 The adoption of the Homeric banquet in central Italy in the orientalisering period. In O. Murray (ed.), *Symptica*, 279–88. Oxford University Press.
- Rieckhoff, S. 1998 Ein 'keltisches Symposium'. Spätrepublikanisches Bronzegeräth vom Mont Beuvray als wirtschaftlicher und gesellschaftlicher Faktor. In A. Müller-Karpe, H. Brandt, H. Jöns, D. Krauß and A. Wigg (eds), *Studien zur Archäologie der Kelten, Römer und Germanen in Mittel- und Westeuropa. Alfred Haffner zum 60. Geburtstag gewidmet*, 489–517. Rahden/Westf. Marie Leidorf.
- Schönfelder, M. 1994 Bear-claws in Germanic graves. *Oxford Journal of Archaeology* 13, 217–27.
- Schönfelder, M. 2002 *Das spätkeltische Wagengrab von Boé (Dép. Lot-et-Garonne)*. Studien zu Wagen und Wagengräbern der jüngeren Latènezeit. Römisch-Germanisches Zentralmuseum Monographien 54. Mainz.
- Stead, I.M. and Rigby, V. 1986 *Baldock: the excavation of a Roman and pre-Roman settlement, 1968–72*. Britannia Monograph 7. London.

Ritual feasting in Iron Age Ireland

Finbar McCormick

Introduction

When Sir William Petty wrote his economic appraisal of Ireland in 1672 it was at a time when the old Gaelic political and social structures, in which cattle were measured as the primary form of wealth, had all but disappeared. He noted in the context of the native Irish diet that 'as for flesh, they seldom eat it, notwithstanding the great plenty thereof, unless it be of the smaller animals, because it is inconvenient for one of the families to kill a beef, which they have no convenience to save. So 'tis easier for them to have a hen or a rabbit, than a piece of beef of equal substance' (Hull 1899, 191). This is a very telling observation because it shows that if one did not have a market economy, a social system for distributing meat or a method of preserving meat, the carcass of a bovine was simply too large to serve as an immediate and efficient source for the consumption of meat on a domestic scale.

The killing of large animals in temperate and warmer climates invariably necessitated the consumption of a large quantity of meat during a short period of time. The slaughter of a bovine, for instance, could result in the production of nearly 200kg of edible meat (McCormick 2002a). Even a sheep can produce a considerable amount of meat, the primitive Soay breed producing a dressed carcass of nearly 10kg (McCormick 2006, 165). Such circumstances necessitate the development of social institutions that can facilitate the efficient consumption of large quantities of meat. In medieval Ireland a system known as *coe* provided such a facility. This was a legal obligation to provide 'winter hospitality for [a] lord' (Kelly 1988, 30), but it also applied to high-ranking clerics, doctors and judges (O'Sullivan 2004, 63). Freeman were obliged to provide food, shelter and entertainment for a lord and his retinue for a specified amount of time during the year. The length of stay was usually three days and three nights (*ibid.*, 212). The number of people that a lord could bring with him depended on the rank of the freeman. A seventh/eighth-century law stipulates that an *aire túiseo* could bring a retinue of 60 persons (Kelly 1988, 30), but much larger retinues are recorded in later medieval sources (O'Sullivan 2004, 53). The carcasses of

large animals tend to be hierarchical in terms of the quality of meat from different parts of the carcass. Formalised feasting, therefore, needs to be inclusive in terms of the rank of the participants. This is clearly demonstrated in the Irish evidence. The later medieval description of a feast held at Tara, hosted by the king, indicates that a cross-section of society was present (McCormick 2002a, 27–8). Most importantly, however, the layout of the feast indicated in the Book of Leinster and the Yellow Book of Lecan shows that particular joints were equated with persons of appropriate rank. Thus the king and the judges were provided with tenderloin, while the 'fort builder' was given a belly piece and the wall-makers and ditch-diggers were provided with the thick part of the shoulder, i.e. inferior joints. Communal feasting, therefore, would have tended to be inclusive rather than exclusive, as persons of different status would have needed to be present to consume the meat.

Feasting in later prehistory

In the absence of documentary evidence it is impossible to ascertain the forms of social institution that would have facilitated the distribution and consumption of meat in Iron Age Ireland. Documentary evidence from outside Ireland, however, indicates that such activity usually formed part of the religious practices of early societies. In Greece, for instance, there was an 'absolute coincidence of meat-eating and sacrificial practice' (Detienne 1989, 3). This meant that virtually all meat consumed in classical Greece had been 'sanctified' during the ritual of sacrifice before it was consumed. In early Mesopotamia the feeding of the gods, and consequent distribution of meat, provided the main vehicle for the consumption of meat (Scurlock 2002; 2006a; 2006b). Jha (2002, 32), in his study of cattle sacrifice and meat consumption in early India, notes that the Vedic texts suggest that animals sacrificed to the gods were the source of 'all food'. In other societies, such as China, feeding the ancestors provided an occasion for the communal distribution and consumption of meat (Chang 1977, 46). The centrality of religious practice in the distribution and

consumption of meat in early Egypt can be appreciated from a Middle Kingdom text that suggests that the temples had a monopoly of butchers in the country (Ikram 1995, 110).

None of this comparative material throws much light on practices in late prehistoric Ireland except to suggest that it is likely that communal meat consumption too would have formed part of the religious practices of the time. We know that formalised feasting was an important institution in early Irish medieval society. There is also evidence that the transformation of sacrificial rites into the more acceptable communal feasting was part of the process of Christianisation in western Europe. There are instances in early Gaulish saints' Lives of saints performing miracles that remove the sacrificial element from occasions of feasting (Effos 2002, 9–12). The advent of Christianity essentially separated feasting from sacrifice, with blood sacrifice being replaced by representative sacrifice in the form of transubstantiation during the Mass. The biblical justification for the cessation of blood sacrifice can be found in Corinthians I, ch. 10, vv 18–21, where St Paul condemns the consumption of meat that was derived from pagan blood sacrifice.

It is extremely difficult to identify sacrifice, the feeding of the gods or the dead, or the resultant feasting in the archaeological record. Highly ornate late Bronze Age and Iron Age objects associated with food preparation imply that food preparation and consumption transcended the purely functional (Fitzpatrick, this volume). They are also likely to have had a religious function. Hartog (1989) notes that the knife, skewer and cauldron were 'indispensable instruments of sacrifice' in Greek ritual, while the flesh-hook too was used for removing the boiled meat from the cauldron during the sacrificial feast (Durard 1989, 102).

Ritual feasting with associated sacrifice often takes place within specially designated areas which can be clearly differentiated from ordinary domestic structures. Thus, in the classical world, the sanctuary with the sacrificial altar located in front of the temple was a standard and easily recognised architectural form. In other cultures such activity did not occur in any formalised area. Herodotus (4:59) noted that the Scythians 'prayed to their gods by offering them sacrifices, but that this cult involved neither the making of statues, the use of altars, or the building of temples' (Hartog 1989, 171). In Ireland, however, excavations at Navan Fort (Waterman 1997) and Dún Ailinne (Johnston and Wailes 2007) have produced evidence for large structures that are clearly of a ceremonial nature. In

both instances the main structures were regarded by the excavators as being of a ritualistic rather than a domestic nature. These were large regional ceremonial sites, the focus of periodic assemblies and religious activity, both of which have produced animal bone assemblages.

It is difficult to identify ritual—or, indeed, non-ritual—feasting on the basis of the discarded food debris. In terms of element distribution and butchery breakage, the bone debris from a ceremonial site may differ little from the bone assemblage from a medieval town. In some instances, however, there can be evidence for deliberate deposition, as opposed to informal dumping, of animal bones, which can be interpreted as being indicative of ritualistic activity. For instance, ritual animal slaughter and communal feasting still occur on saints' days in modern rural Greece (Georgourdi 1989). The animals are slaughtered outside the church, either during or after Mass, as sacrifices to the local saints. The meat is then cooked in large cauldrons in the vicinity of the church, and after the meals the bones 'are thrown on the roofs, where they are safe from dogs but are accessible to birds, the noble creatures of God' (*ibid.*, 190). Dogs are considered unclean. A comparable practice can be seen at Neolithic Kilshane, Co. Dublin (Fitzgerald 2006, 33–5), where the cattle bones were deliberately deposited and apparently quickly covered in the enclosure ditch so that they were not accessible to carnivores. There are no gnawing marks on the large assemblage of cattle bones from the site (McCormick, in preparation). At the causeway enclosure at Windmill Hill, Wiltshire, many of the bones seem to have been tied up in bundles before they were deposited in the enclosure ditches (Whittle *et al.* 1999, 357) and these deposits were easily identifiable as being of an unusual nature. Mount (1994) has argued that the faunal remains of the late Neolithic/early Bronze Age deposits in front of the passage tomb mound at Newgrange, Co. Meath, are a reflection of ceremonial feasting, and suggests that deliberate bone deposition can be identified in parts of the site. Greek sacrifice entailed the burning of some of the bones, wrapped in fat, of the sacrificed animal. Caches of these bones, associated with vessels used in feasting, have been identified in deposits in Mycenaean temples (Isaakidou *et al.* 2002; Stocker and Davis 2004). Unlike ordinary food debris, however, the bones were not broken for the extraction of marrow.

In most incidences, however, faunal assemblages do not provide clear indicators of ceremonial feasting. An alternative approach for identifying ritualistic practices is to

Table 1—Fragments and minimum numbers of individuals (MNI) from Iron Age sites (Crabtree 1990; McCormick 1997; 2002b). Note: The sample from Tara was too small to allow reliable calculation of MNI values. Percentage values are presented within brackets.

	Navan		Dún Ailinne		Tara (Cuttings 1 and 2)	
	Frag.	MNI	Frag.	MNI	Frag.	MNI
Cattle	795 (30.1)	29 (27.9)	2411 (54.4)	66 (42.0)	189 (47.6)	-
Pig	1573 (59.5)	62 (59.6)	1582 (35.7)	56 (35.7)	89 (22.4)	-
Sheep/goat	221 (8.4)	7 (6.7)	327 (7.4)	25 (15.9)	55 (13.9)	-
Horse	21 (0.8)	1 (1.0)	108 (2.4)	10 (6.4)	22 (5.5)	-
Dog	1 (-)	1 (1.0)	3 (0.1)	?	38 (9.6)	-
Red deer	29 (1.1)	2 (1.9)	3 (0.1)	?	2 (0.5)	-
Dog/wolf	1 (-)	1 (1.0)	-	-	-	-
Fox	-	-	-	-	2 (0.5)	-
Barbary ape	1 (-)	1 (1.0)	-	-	-	-

try and establish whether there is anything unusual about the assemblages present on sites that themselves suggest ceremonial rather than purely domestic activity. The present study will consider the faunal evidence from Navan Fort, Co. Armagh, Tara, Co. Meath, and Dún Ailinne, Co. Kildare, all of which are regarded as Iron Age regional ceremonial centres. There is, however, a basic problem with this line of enquiry. The most obvious approach would be to compare the assemblages from these sites with material from contemporary purely domestic sites. Unfortunately, such sites are extremely rare in Iron Age Ireland, and none have produced faunal assemblages that could be used for this purpose. Even without comparable material, however, there is still the potential to identify unusual activity from an assemblage. The overall distribution of animal bone from the three sites is shown in Table 1.

Dún Ailinne

The faunal assemblage derived from the centre of the enclosure; many of the bones were associated with large ceremonial wooden buildings, but the largest sample came from a low mound containing much burnt stone that marked the end of Iron Age occupation on the site. There is no evidence to show that the material is other than discarded food refuse and there is no significant over- or under-representation of specific meat joints. These observations can also be applied to the material from Navan Fort and Tara. The distribution of species from the site is not unusual when compared with material from other Irish prehistoric or early

medieval sites (McCormick 2007; McCormick and Murray 2007). The age slaughter pattern of cattle, however, shows that a large number of young calves were killed.

In early studies of the assemblage, Crabtree (1985; 1990) provided an economic interpretation for the assemblage, arguing that it was indicative of a dairying economy. More recently, however, Crabtree (2004; 2007) has modified her interpretation, moving away from a purely economic interpretation to a more ritualistic approach. She noted that in her earlier work she 'took it for granted that subsistence economy (including animal husbandry) lay at the core of ancient human societies, and that religious and ritual activities were, at best, epiphenomenal . . . I viewed ritual feasting as a functional outgrowth of early Irish subsistence practices' (Crabtree 2004, 64). Latterly, she regarded ritual feasting as a central activity in early cultures, and the meat consumed at such feasts was 'unlikely to have been part of the regular diet of Irish Iron Age farmers' (*ibid.*, 64). In her view, therefore, it is no longer necessary to provide a purely economic reason for the killing of young calves at Dún Ailinne. Veal was simply an appropriate food for some ritual feasts. The assumption of ritual feasting also forces one to reinterpret the source of the meat consumed. Crabtree (2007, 169) concludes that 'the cattle were probably not procured from a single large herd. It is more reasonable to assume that these cattle were drawn from a number of different herds throughout Leinster'.

Prehistoric feasting is very likely to have been accompanied by sacrificial slaughter. The spectacle of the sacrifice would have given the ceremony much more drama and meaning than simply bringing prepared joints of meat

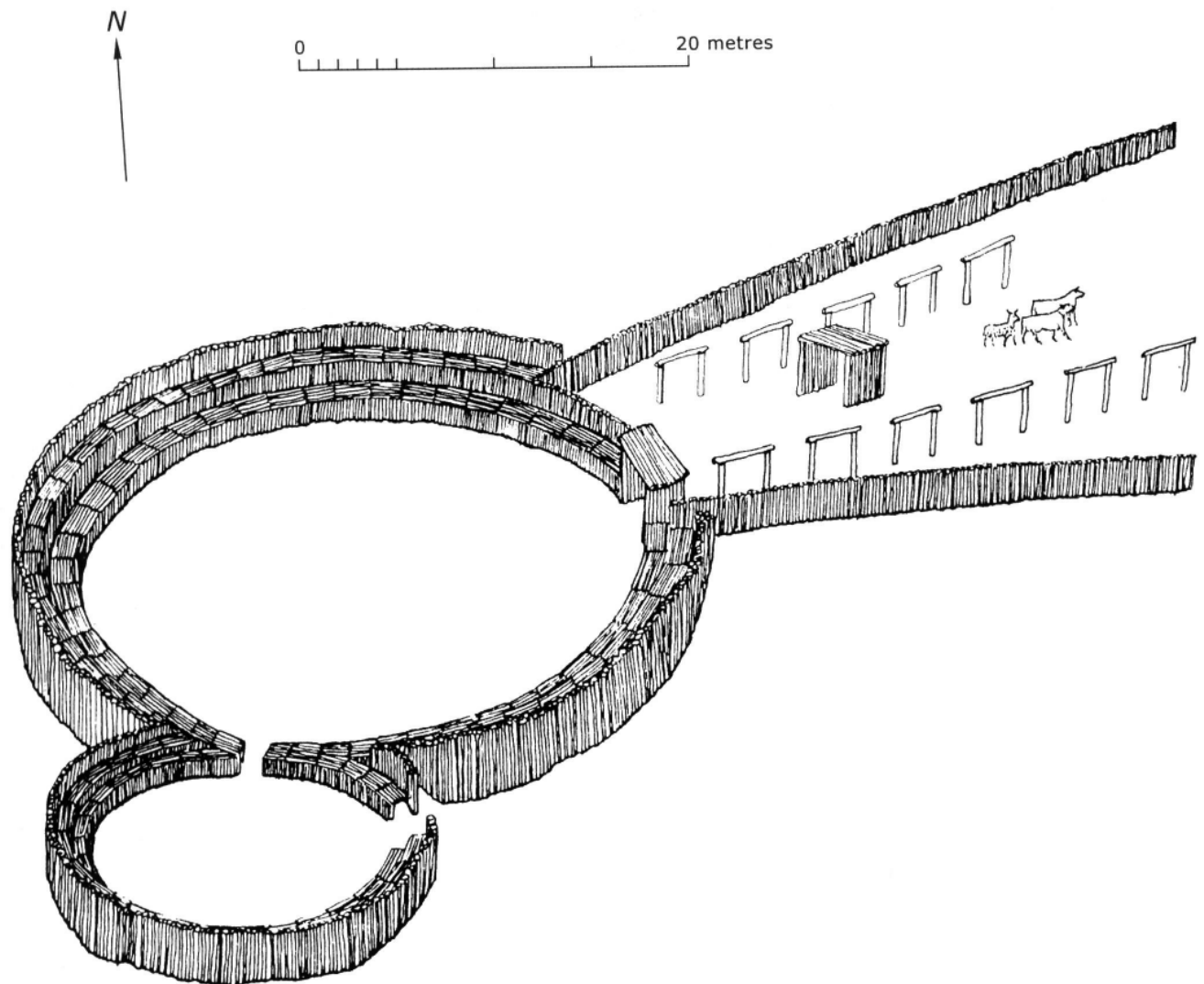


Fig. 1—Suggested reconstruction of Dún Ailinne structure (Johnston and Wailes 2007, 16).

to the site for communal feasting. Crabtree (2007, 169) notes that there was no evidence for charring marks near the ends of the bones, a feature that is indicative of roasting. This implies that the meat was boiled, presumably in large cauldrons. Boiling was the preferred method of cooking sacrificed animals among the Scythians (Hartog 1989, 177) and the Greeks, with Durand (1989, 103) explaining that 'tough, freshly-killed meat . . . is barely edible if not boiled'. Boiling, therefore, could imply that the animals were killed immediately before cooking, as one would expect in ritual sacrifice. Furthermore, a procession of the sacrificial animal and the human participants was often an integral part of

early sacrificial ceremony (Burkert 1983, 3–4). In other instances, 'it was the custom in Greece to allow animals consecrated to the gods to wander freely within the temple enclosures' before sacrifice (Detienne 1989, 9). The large wooden circular enclosures of the Rose Phase at Dún Ailinne, with its elaborate processional avenue (Fig. 1, Rose Phase reconstruction), would have been extremely suitable for similar ceremonies.

Navan Fort

If cattle, and in particular veal, were the preferred ceremonial

animals at Dún Ailinne, this was certainly not the case at Navan Fort. Pig, instead, was the dominant species present. Pig dominance is extremely unusual in faunal assemblages in prehistoric Britain and (post-Mesolithic) Ireland and does not occur on early medieval Irish sites (McCormick and Murray 2007). The only reliable post-Mesolithic faunal assemblages to indicate a clear pig dominance are late Neolithic/early Bronze Age Newgrange and Durrington Walls, Wiltshire, England (Alberalla and Serjeantson 2002). It has already been noted that Mount (1994) argued that the Newgrange evidence represents ritual feasting, and the causewayed enclosure at Durrington Walls is regarded as a ceremonial centre rather than a purely domestic settlement (Whittle *et al.* 1999, 381–90). The consumption of pigs in large quantities on prehistoric sites is generally associated with ceremonial sites rather than ordinary domestic contexts. McCormick (1997, 118) adds support to this hypothesis when he argues that the unusual dominance of pig at Navan could not simply be a result of environmental conditions, i.e. a dominance of forest in the vicinity of Navan Fort. Cattle dominated the assemblage in nearby Bronze Age Haughey's Fort, and Weir (1987) has shown that pollen evidence indicates no expansion of forest in the area between the two settlements during the period. The pig dominance must therefore be a result of social or religious factors. It is interesting that the high incidence of pig conforms with later mythological literature, such as *Scéla Mucce Meic Dathó* (Thurneysen 1935), where pork is the preferred meat of the Irish royal feast. Indeed, one Middle Irish tract specifies that pork was consumed at a royal feast at Emain Macha (Navan Fort) hosted by the legendary King Conchobhar (O'Sullivan 2004, 92).

There was a clear difference in the distribution of species between Navan and Dún Ailinne. How can one explain differences in species distribution if one is not invoking environmental or economic factors as an explanation? It may well be that different tribes regarded certain animals as having a cultic status and these species perhaps assumed a greater importance in their ceremonies. Evidence from other cultures can indicate that particular gods had different preferences as far as sacrificial diet was concerned. In the case of Mesopotamian sacrifice, Scurlock (2002, 393) notes that 'Gods could have their little quirks; Šakkan refused to eat mutton, Ningubлага, beef and Belet-seri, poultry. Ereškgal might accept a sheep or goat, but never ox-meat or fowl'. In Rome the sacrifice of horse was restricted to Mars, the god of war (Pascal 1981). The choice of animals could also be

related to their sex or colour. In Rome male animals were offered to gods and females to goddesses; animals sacrificed to Juno and Jupiter were white, while black animals were sacrificed to gods of the underworld (Gilhus 2006, 115). Additionally, different animals were associated with different deities in the 'Celtic' world (Green 1986, 167–99). In reality, however, one would have expected a whole range of domesticated animals to have been sacrificed and consumed in ceremonial feasting. Jameson (1988, 93), for instance, noted that in classical antiquity cattle were the predominant sacrificial animal depicted in myth and art. His study of the faunal remains from sanctuaries and financial accounts from townships (*demes*) in Attica, however, indicated that a great variety of animals were sacrificed but that the majority tended to be sheep and goat. He concludes that 'the choice between cattle and sheep was essentially a matter of cost and availability' (*ibid.*, 94). It would be unwise, therefore, to attempt to explain the distribution of species chosen at Dún Ailinne and Navan Fort purely on the basis of ceremonial or religious considerations; underlying economic factors are also likely to have been important.

Tara

The faunal assemblage from Tara was much smaller than those from the two sites already considered. In terms of the distribution of the main domesticated species, the pattern is closer to Dún Ailinne than Navan (Table 1). Cattle dominate, followed by pig, with sheep in third place. The assemblage came from the ditch of Ráith na Ríg in the immediate vicinity of the Mound of the Hostages (Roche 2002). Two aspects of the assemblage are unusual. The Tara material contains higher incidences of dog and horse bones than the two other sites. Dog remains comprise 9.6% of the Tara fragment, compared with 0.7% in the case of Navan and 0.04% in the case of Dún Ailinne. Horse remains comprise 5.5% at Tara compared with 0.8% at Navan and 2.4% at Dún Ailinne. The incidences of both species at Tara are also much higher than has been noted on any other Irish prehistoric site (McCormick 2007) with the single exception of the King's Stables near Navan Fort. At this site, which can be best described as a late Bronze Age ritual pool, dog comprised 31% of the total fragments, although none are recorded as having displayed cut marks (Penn 1977, 58).

A dog pelvis from Tara displayed knife marks that were consistent with the dismemberment of a leg rather than the

skinning of the animal (McCormick 2002b, 107, fig. 3). This implies that dog flesh was being consumed. Bhreathnach (2002, 118–19) believes that the high incidence of dog at Tara was a reflection of ceremonial activity. She considers the dog to have been a cultic animal in Roman Britain, noting its association with the gods Nodons and Apollo Cunomaglus, and with healing water cults. Medieval Irish literature provided a further context for the eating of flesh in ceremonial contexts. In the tenth-century Cormac's Glossary there is a description of a poet, or perhaps a druid (*filid*), consuming dog flesh as part of a ritual that would produce revelations from the pagan gods. It records that 'The poet chews a piece of the flesh of a red pig, or of a dog or cat, and places it afterwards on the flagstone behind the door, and sings an incantation on it and offers it to the idol-gods and afterwards calls his idols to him . . . and what he seeks is then revealed to him' (Ó hÓgáin 1999, 79).

Mounds were frequently used as royal inauguration sites in medieval Ireland (Fitzpatrick 2001, 360), and it is tempting to identify the Mound of the Hostages as being the inauguration site at Tara, as argued by Warner (1988, 57). If this is the case, it could provide an explanation for the horse bone assemblage in the adjacent ditch (McCormick 2002b, 106–7). The butchered and cooked horse bones from this ditch could be a reflection of the ritual slaughter and consumption of horseflesh described by Geraldus Cambrensis at the end of the twelfth century AD. The description is curious, to say the least, and worth quoting in full (O'Meara 1982, 110).

'There is in the northern and farther part of Ulster, namely the Kenelcunill [Tyrconnell], a certain people which is accustomed to appoint its king with a rite altogether outlandish and abominable. When the people in that land had been gathered together in one place, a white mare is brought forward into the middle of the assembly. He who is to be inaugurated, not as a chief, but as a beast, not as a king, but as an outlaw, has bestial intercourse with her before all, professing himself to be a beast also. The mare is then killed immediately, cut up in pieces, and boiled in water. A bath is prepared for the man afterwards by all his people, and all, he and they, eat of the meat of the mare which is brought to them. He quaffs and drinks of the broth in which he is bathed, not in any cup, or using his hand, but just dipping his mouth into it around him. When this unrighteous rite has been carried out, his kingship and dominion have been conferred.'

Doherty (2005, 17–24) has shown how this inauguration ceremony shows clear parallels with the horse sacrifice that occurred during Indian kingship inauguration rites (*āsvamedha*). Both rites contain a sexual element, although in the Indian *āsvamedha* the encounter is between the queen and a stallion: 'the stallion was smothered to death, whereupon the *mahiṣī* or chief queen symbolically cohabited with it under covers, while the entourage engaged in obscene banter' (Puhvel 1970, 161). This element of both the Irish and Indian rites can be seen as a ritualistic method of ensuring fertility for a kingdom.

Conclusion

It is extremely difficult to identify ceremonial feasting or associated sacrifice from the archaeological record in the absence of documentary sources. Furthermore, there has been a tendency for zooarchaeologists to eschew ritualistic interpretations because their framework for thinking tends to derive from economic and biological models. Consideration of documented evidence dealing with feasting and its close association with ritualised animal slaughter, however, will inevitably lead to the conclusion that such activities must have played an important role in most early societies. It is likely that the meat of larger animals was mainly eaten on special occasions and that societies would have devised religious institutions that would have facilitated such consumption.

The large, regional ceremonial royal sites of Iron Age Ireland seem to have been the focus of occasional assembly rather than permanent domestic habitation. Such assemblies would have been an occasion of communal feasting, and it is difficult to believe that this would have lacked a religious component. There was no efficient mechanism for consuming the meat of large domesticates on a domestic scale, and examination of documented religious practices in early societies clearly shows that religion facilitated the distribution and consumption of meat. The faunal evidence from Dún Ailinne, Navan and Tara all show traits that can be regarded as unusual, do not seem to reflect everyday behaviour, and can therefore be regarded as being of a ritualistic nature. This way of considering faunal remains hopefully provides a context for the interpretation of Iron Age artefacts associated with food preparation and consumption.

References

- Alberalla, U. and Serjeantson, D. 2002 A passion for pork: meat consumption at the British Late Neolithic site of Durrington Walls. In P. Miracle and N. Milner, *Consuming passions and patterns of consumption*, 33–49. Cambridge. McDonald Institute.
- Bhreathnach, E. 2002 Observations on the occurrence of dog and horse bones at Tara. *Discovery Programme Reports* 6, 117–22.
- Burkert, W. 1983 *Homo Nectans—the anthropology of ancient Greek sacrificial ritual and myth*. California University Press.
- Chang, K.C. 1977 Ancient China. In K. C. Chang (ed.), *Food in Chinese culture: anthropological and historical source*, 23–52. Yale University Press.
- Crabtree, P. 1985 The mammalian fauna from Dún Ailinne, Co. Kildare, Ireland. *MASCA Journal* 3 (6), 179–81.
- Crabtree, P. 1990 Subsistence and ritual: the faunal remains from Dún Ailinne, Co. Kildare, Ireland. *Emania* 7, 22–5.
- Crabtree, P. 2004 Ritual feasting in the Irish Iron age: re-examining the fauna from Dún Ailinne in light of contemporary theory. In S. J. O'Day, W. Van Neer and A. Ervynck, *Behaviour behind bones: the zooarchaeology of ritual, religion, status and identity*, 62–5. Oxford. Oxbow.
- Crabtree, P. 2007 Biological remains. In S. A. Johnston and B. Wailes, *Dún Ailinne: excavations at an Irish royal site, 1968–1975*, 157–69. Philadelphia. University of Pennsylvania Museum of Archaeology and Anthropology.
- Detienne, M. 1989 Culinary practices and the spirit of sacrifice. In M. Detienne and J. P. Vernant, *The cuisine of sacrifice among the Greeks*, 1–20. University of Chicago Press.
- Doherty, C. 2005 Kingship in early medieval Ireland. In E. Bhreathnach (ed.), *The kingship and landscape of Tara*, 3–31. Dublin. Four Courts Press/Discovery Programme.
- Durard, J.L. 1989 Greek animals: towards a topology of edible bodies. In M. Detienne and J. P. Vernant, *The cuisine of sacrifice among the Greeks*, 87–105. University of Chicago Press.
- Effos, B. 2002 *Creating community with food and drink in Merovingian Gaul*. New York. Palgrave Macmillan.
- Fitzgerald, M. 2006 Archaeological discoveries in the new section of the N2 in counties Meath and Dublin. In J. O'Sullivan and M. Stanley (eds), *Settlement, industry and ritual*, 29–42. Archaeology and the National Roads Authority Monograph No. 2. Dublin. National Roads Authority.
- Fitzpatrick, E. 2001 Assembly and inauguration places of the Burkes in late medieval Connacht. In P. J. Duffy, D. Edwards and E. Fitzpatrick (eds), *Gaelic Ireland: land, lordship and settlement c. 1250–1650*, 357–74. Dublin. Four Courts Press.
- Georgourdi, S. 1989 Sanctified slaughter in modern Greece. In M. Detienne and J. P. Vernant, *The cuisine of sacrifice among the Greeks*, 183–203. University of Chicago Press.
- Gilhus, I.S. 2006 *Animals, gods and humans: changing attitudes to animals in Greek, Roman and early Christian ideas*. London. Routledge.
- Green, M. 1986 *The gods of the Celts*. Goldaming. Bramley.
- Hartog, F. 1989 Self-cooking beef and the drinks of Ares. In M. Detienne and J. P. Vernant (eds), *The cuisine of sacrifice among the Greeks*, 170–82. University of Chicago Press.
- Hull, C.H. (ed.) 1899 *The economic writings of Sir William Petty*, Vol. 1. Cambridge.
- Ikram, S. 1995 *Choice cuts: meat production in ancient Egypt*. Orientalia Lovaniensia Analecta 69. Leuven. Peeters.
- Isaakidou, V.P., Halstead, J.D. and Stocker, S. 2002 Burnt animal sacrifice at the Mycenaean 'Palace of Nestor', Pylos. *Antiquity* 76, 86–92.
- Jameson, M.H. 1988 Sacrifice and animal husbandry in classical Greece. In C. R. Whittaker (ed.), *Pastoral economies in classical antiquity*, 87–119. Proceedings of the Cambridge Philological Society, Suppl. 14. Cambridge.
- Jha, D.N. 2002 *The myth of the holy cow*. London. Verso.
- Johnston, S.A. and Wailes, B. 2007 *Dún Ailinne: excavations at an Irish royal site, 1968–1975*. Philadelphia. University of Pennsylvania Museum of Archaeology and Anthropology.
- Kelly, F. 1988 *A guide to early Irish law*. Dublin Institute for Advanced Studies.
- McCormick, F. 1997 The animal bones from Site B. In D. M. Waterman, *Excavations at Navan 1961–71* (ed. C. J. Lynn), 117–20. Belfast. The Stationery Office.
- McCormick, F. 2002a The distribution of meat in a

- hierarchical society: the Irish evidence. In P. Miracle and N. Milner, *Consuming passions and patterns of consumption*, 25–31. Cambridge. McDonald Institute.
- McCormick, F. 2002b The animal bones from Tara. *Discovery Programme Reports* 6, 103–16.
- McCormick, F. 2006 Animal bone. In I. Armit, *Anatomy of an Iron Age wheelhouse*, 161–72. Edinburgh. Society of Antiquaries.
- McCormick, F. 2007 Mammal bones from prehistoric Irish sites. In E. M. Murphy and N. J. Whitehouse (eds), *Environmental archaeology in Ireland*, 77–101. Oxford. Oxbow.
- McCormick, F. (in prep.) The animal bones from Kilshane, Co. Dublin.
- McCormick, F. and Murray, E.V. 2007 *Knowth and the zooarchaeology of Early Christian Ireland*. Dublin. Royal Irish Academy.
- Mount, C. 1994 Aspects of ritual deposition in the Late Neolithic and Beaker periods at Newgrange, Co. Meath. *Proceedings of the Prehistoric Society* 60, 433–43.
- Ó hÓgáin, D. 1999 *The sacred isles: belief and religion in pre-Christian Ireland*. Cork. Collins.
- O'Meara, J.J. (ed.) 1982 *The history and topography of Ireland by Gerald of Wales*. Harmondsworth. Penguin.
- O'Sullivan, C. 2004 *Hospitality in medieval Ireland*. Dublin. Four Courts Press.
- Pascal, C.B. 1981 October horse. *Harvard Studies of Classical Philology* 85, 261–91.
- Penn, C. 1977 An osteological analysis of the animal remains from the King's Stables. In C. J. Lynn, 'Trial excavations at the King's Stables, Tray Townland, Co. Armagh'. *Ulster Journal of Archaeology* 40, 58–9.
- Puhvel, J. 1970 Aspects of equine functionality. In J. Puhvel (ed.), *Myth and law among the Indo-Europeans*, 157–72. California University Press.
- Roche, H. 2002 Excavations at Ráith na Ríg, Co. Meath. *Discovery Programme Reports* 6, 19–82.
- Scurlock, J. 2002 Animals in ancient Mesopotamian religion. In B. J. Collins, *A history of the animal world in the ancient Near East*, 361–403. Leiden. Brill.
- Scurlock, J. 2006a The techniques of the sacrifice of animals in ancient Israel and ancient Mesopotamia: new insights through comparison, part 1. *Andrews University Seminary Studies* 44 (1), 13–49.
- Scurlock, J. 2006b The techniques of the sacrifice of animals in ancient Israel and ancient Mesopotamia: new insights through comparison, part 2. *Andrews University Seminary Studies* 44 (2), 241–64.
- Stocker, S.R. and Davis, J.L. 2004 Animal sacrifice, archives and feasting at the palace of Nestor. *Hesperia* 73, 179–95.
- Thurneysen, R. 1935 *Scéla Mucce Meic Dathó*. Medieval and Modern Irish Series VI. Dublin. The Stationery Office.
- Warner, R.B. 1998 The archaeology of early historic Irish kingship. In S. T. Driscoll and M. R. Níeke (eds), *Power and politics in early medieval Britain and Ireland*, 47–68. Edinburgh University Press.
- Waterman, D.M. 1997 *Excavations at Navan Fort 1961–71* (ed. C. J. Lynn). Northern Ireland Archaeological Monographs 1. Belfast. The Stationery Office.
- Weir, D. 1987 Palynology and the environmental history of the Navan period. *Emania* 3, 34–43.
- Whittle, A., Pollard, J. and Grigson, C. 1999 *The harmony of symbols: the Windmill Hill enclosure*. Oxford. Oxbow.

Irish late prehistoric burial ring-ditches

Tiernan McGarry

One of Barry's talents is his ability to make the enigmatic and problematic appear interesting and challenging rather than like a well of perpetual disappointment. A conundrum that fascinated him—and, as a consequence, me—was what happened to the bodies of the late prehistoric people of the island. His 1981 paper 'Iron Age burials in Ireland' summarised and discussed the evidence then known, and is still referenced by many writers today. With gratitude to Barry for his encouragement and guidance during the past few years, this paper has been written in an attempt to clarify how the evidence discovered since 1981 can further our knowledge of some aspects of Irish late prehistoric burial practices, particularly the nature of sites and monuments used.

The patterns outlined here are based on available information from 108 burial sites of various kinds (McGarry 2008b). They are those amongst burials and monuments most securely dated to the late Bronze Age and Iron Age (*c.* 1300 BC–AD 400), and exclude those amongst burials dated solely through association with coarse pottery of possible or probable late Bronze Age type.

Several different types of sites and monuments were used during the late Bronze Age and Iron Age for the burial of human remains. For the present paper, each late prehistoric burial place separated by at least 100m from another, and each substantial burial monument, will be treated as a separate 'site'. These include flat cemeteries, isolated pits, watery contexts, mounds, cairns, standing stone arrangements, megalithic tombs, a cave, a kiln, and a small number of habitation-like sites. One type of monument, however, dominates the record during the period, particularly for cremated burials, and this is the ditched burial enclosure or 'burial ring-ditch', which is the main focus of this paper. Some patterns in geographical distribution, altitude and cemetery populations for all burial sites will first be set out; this will be followed by an outline of characteristics of burial ring-ditches and burial arrangements at them, followed by a discussion of patterns and some possible reasons for them.

Distribution, altitude, and cemetery population

The distribution of known burial sites during the late Bronze Age and Iron Age is mainly in Leinster, Connacht, north and west Munster and, to a lesser extent, south Ulster. There is a very marked scarcity or absence of burials in large parts of northern and central Ulster, with none in Derry, Antrim, Cavan and Monaghan, and only one each in Donegal, Fermanagh and Tyrone. There are also very few along the extreme western coast and none in the western parts of Donegal, Mayo, Galway, Clare and Limerick. There are only two in the entire county of Cork and none in Waterford (Fig. 1). Many of these sites, however, have been discovered in the course of infrastructural or building developments, particularly in the Republic, during the past two decades, and the distribution map will therefore reflect an emphasis on areas of high (modern) population density and on the routeways and pipelines between these. Many of the large gaps in burial distribution can be filled by evidence for human activity represented by distinctive late Bronze Age artefacts (e.g. Cooney and Grogan 1999, fig. 9:1; Waddell 2000, 202–61), and from 800 BC–AD 400 by radiocarbon results from material associated with a wide variety of human activities (see K. Becker, 'Iron Age Ireland—finding an invisible people', in this volume, fig. 3) and distinctive Iron Age material (e.g. Raftery 1994, figs 143–4). Collectively, these demonstrate a human presence throughout most of the island during the late Bronze Age and the Iron Age, and probably indicate that many burials await discovery. Nevertheless, the additional evidence presented in this volume does not fill lacunae in some large areas of the west, and of Munster and south Leinster (cf. Warner 1998).

The average altitude of burial sites varied over the course of late prehistory, from *c.* 104m OD during *c.* 1000–800 BC to *c.* 56m during AD 1–400 (Fig. 2). As might be expected, the altitude of individual sites varied considerably, from almost sea-level up to about 300m, but it is quite noticeable that only four sites were located higher than 175m OD.

- Burial Sites
c. 1300BC–AD400 (108 sites)

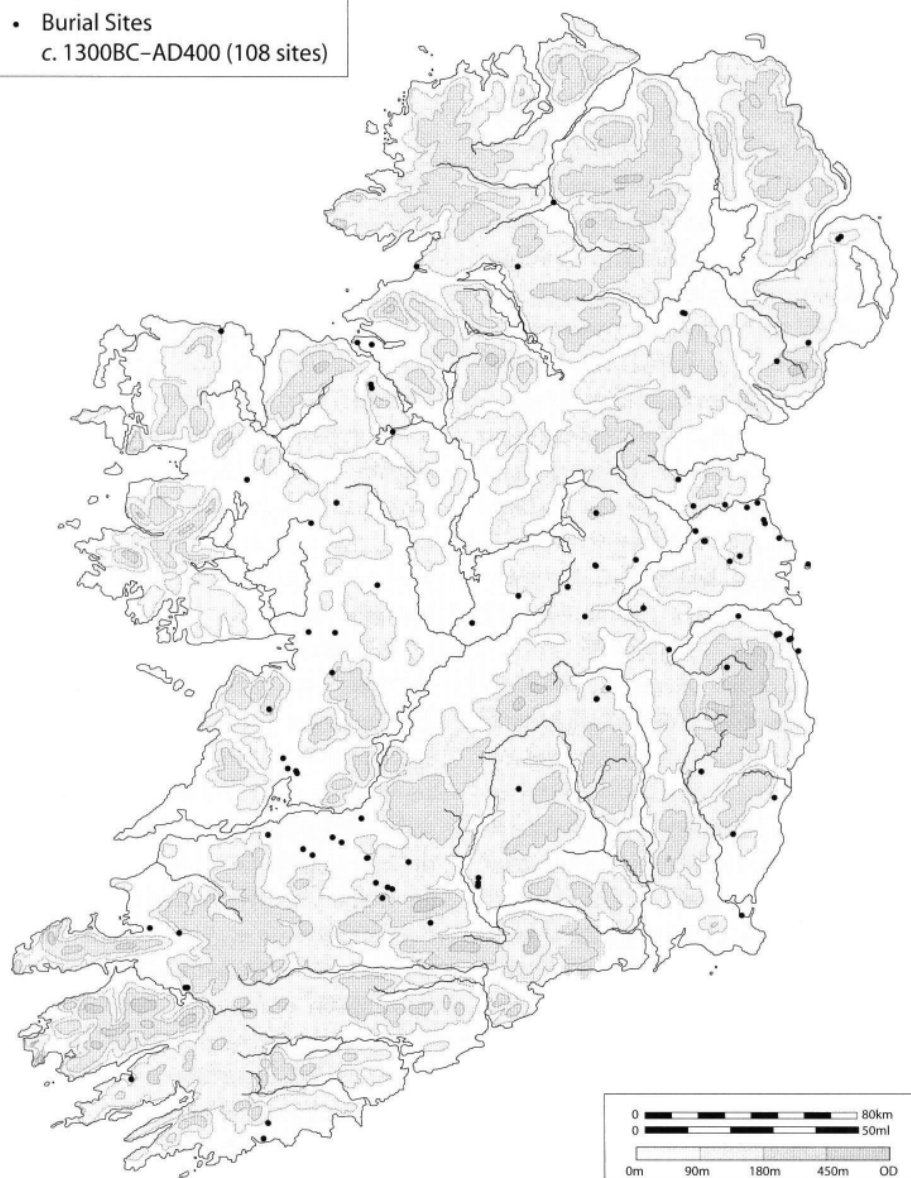


Fig. 1—Distribution map of late Bronze Age and Iron Age burial sites.

About half of the burial sites produced only one identifiable individual (Fig. 3), but the one-third of sites that had surface expression when excavated (e.g. ditch, mound, cairn, standing stone) produced 50% more burials than those that did not, and this suggests that many burials have been destroyed since interment. The species, age and biological sex of cremated bone are often very difficult or

impossible to determine because the bone from this period is generally very fragmented, and this also has a bearing on the proportion of buried individuals that are detectable now—particularly those from during the Iron Age, when urns no longer protected them or served to separate individual deposits in the same burial context. Nevertheless, it would seem that most sites (of any kind), perhaps the vast

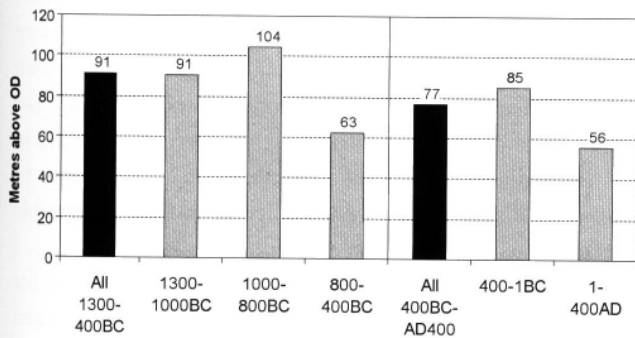


Fig. 2—Average burial site altitude.

Note: averages for 'All 1300-400 BC' and 'All 400 BC-AD 400' include altitudes for sites that could not be assigned to shorter sub-periods.

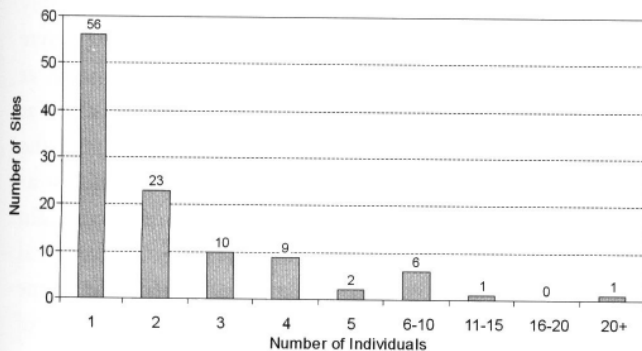


Fig. 3—Number of identifiable individuals per site, c. 1300 BC-AD 400.

majority of them, accommodated fewer than five individuals. While isolated burials and small cemeteries also appear to have been the norm during the early-middle Bronze Age (cf. Waddell 1990, 27, fig. 6A, table 4; Mount 1995; Cooney and Grogan 1999, 95-8, 108-12), it seems that a considerably higher proportion of sites from that time produced more than five individuals. The persistence of very low cemetery populations during the Irish Iron Age (c. 400 BC-AD 400) contrasts with contemporary Britain and

Gaul, where dozens of individuals are not very uncommon and some cemeteries contained several hundred (cf. Whimster 1981, 44-6, 60-2, 98-102; Keegan 2002, 45-7; Pearce 1997; Stead *et al.* 2006, 1-16, 99-131; Wait 1995, 504). This contrast persists even if all burials within (uncommon) clusters of Irish monuments or cemeteries were considered to be within a single 'site', because in only ten cases would the late Bronze Age and Iron Age population then exceed five individuals, in only three cases would it exceed ten,¹ and in no case would it exceed 30.

Burial ring-ditches

Approximately two-thirds of the burial sites had a detectable burial monument of some kind, one-fifth comprised flat cemeteries or isolated pits, one-tenth were watery contexts like bogs and lakes, and the remainder varied from possible habitations to non-funerary enclosures, a kiln, a shell midden and a cave (Fig. 4). About four-fifths of burial monuments had subsoil curvilinear ditches very similar to those of surviving monuments like ring-barrows (cf. Newman 1997, 153-60), and collectively these monuments will be called 'burial ring-ditches' here.

Burial ring-ditches have, broadly speaking, been found in all regions and at all altitudes where late prehistoric burials have been recovered, and there is little to suggest that they had a mutually exclusive relationship with any other contemporary monument type. They averaged 11m in external diameter but varied considerably in size—very few, like Carbury B (Willmot 1938), exceeded 25m in diameter and a considerable number measured less than 7m, with the smallest burial ring-ditch presently known, at Loughbrickland 5, measuring just less than 3m (Large 2007). A less exhaustive study of enclosing ditches at burial monuments during the early-middle Bronze Age, based on summary reports in the *Excavations* bulletin for the years 1970-2004, *Archaeology Ireland* (1989-2008), Waddell 1990, Waddell 2000, Brindley 2007 and Grogan *et al.* 2007, indicates an average diameter of approximately 16m, while those constructed around inhumation burials after c. AD 400 were generally considerably larger.

As well as the general scarcity of habitation-like features, burial ring-ditches can often be distinguished from settlement or other structures (and from burial enclosures after c. AD 400) because their ditches tend to be wider relative to their external diameter. On average, their

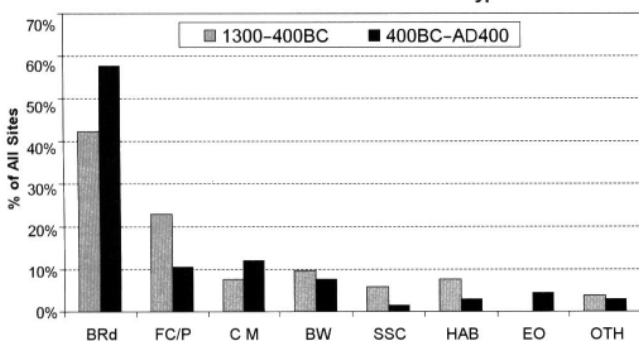


Fig. 4—Incidence of different burial site types.

Keys: BRd = Burial ring-ditch. FC/P = Flat cemetery or pit. C M = Cairn or mound.* B W = Bog or water. SSC = Standing stone or stone circle.* HAB = Possible habitation. EO = Enclosure other. OTH = Other.

*Without enclosing ditch.

diameter-width ratio is 8:1 (at subsoil level), whereas non-funerary circular structures did not normally have such labour-demanding proportions, probably because they did not normally require an enclosing bank or internal mound. Approximately two-fifths of the burial ring-ditches were, like Knockcommane, Marlhill and Knockgraffon (Fig. 5), penannular with at least one gap, possibly representing an entrance, in the circuit of the ditch, while the remainder, like Claureen (Fig. 5), were annular.

The entrances at penannular burial ring-ditches are most likely to be at the east and least likely to be at the north, and there is little evidence to suggest deliberate (horizontal) alignment with nearby external monuments or other features. They average 2m in width at subsoil level but vary substantially from 5m to about 20cm, and there is only a moderate correlation between the diameter of monuments and the width of their entrances. It is, of course, debatable whether a gap of 20cm (e.g. Fig. 5: Knockgraffon) could represent an 'entrance', but we must be mindful of the possibility that some causeways have been narrowed, perhaps even made indiscernible, because of repeated use (by humans or animals) that might have been encouraged by a corresponding gap in an enclosing bank. The case for these gaps to represent entrances might be supported by the rarity of burials in the area between the gap and the centre of the enclosed area, and this might have served to minimise pedestrian traffic over graves. It also appears to be

the case that a cremated burial has not yet been recovered from a pit located in an entrance gap between ring-ditch terminals (like F163 at Marlhill in Fig. 5). While it remains possible that some pits or post-holes supported cemetery markers, the available evidence suggests that non-earthen structural features were not normally associated with the entrances of penannular burial ring-ditches, and features in the immediate vicinity of entrances do not appear to produce a disproportionate quantity of burials or portable artefacts.

Few burial ring-ditches have produced evidence for substantial structures of any kind, and where they did exist it is rarely possible from available information to date these features relative to burial deposition. Only three sites, Rathgall 1 (Raftery 2004), Ballydavis II 3 (Fegan 2006 and pers. comm.) and Kerlogue 2 (McLoughlin 2002 and pers. comm.), had substantial features within the enclosed area suggestive of activities associated with habitation, and in no case is it clear whether these took place before or after the burials. Post- and stake-holes and pits, where they did exist, generally occurred in very small quantities and rarely formed patterns to suggest function. Features probably related to funerary activity are the possible pyre (or pyre debris) at Ferns (Ryan 2000), the possible canopy at Adamstown (Gowen 1988, 94), the four-post structure at Loughbrickland 2 (Large 2007 and pers. comm.), and the U-shaped arrangement of 1,501 small stake-holes at Rathgall 2 (Raftery 1973). Features of uncertain relationship to burial activity include the 'stockade' at Mullaghmore (Mogey and Thompson 1956), the stone circle at Reanascreena (Fahy 1962) and the alignment of small stake-holes at Ballydavis I 2 (Keeley 1999).

Some central mound cores were partly formed from material excavated from rock-cut ditches, but otherwise stone concentrations related to monument construction or maintenance were recorded at only five monuments, where they were interpreted as either ditch revetment or paving, and the vast majority of burial ring-ditches (and burial features within them) were overwhelmingly earthen constructions. While it remains possible that much evidence has been destroyed by truncation, or that the few detectable pits and post-holes had important functions that have since become indecipherable, the available evidence suggests that non-earthen structures broadly contemporary with burial activity were rare within the confines of these monuments. In all but a few cases (e.g. Kerlogue 2) it appears clear that these monuments were constructed primarily for funerary

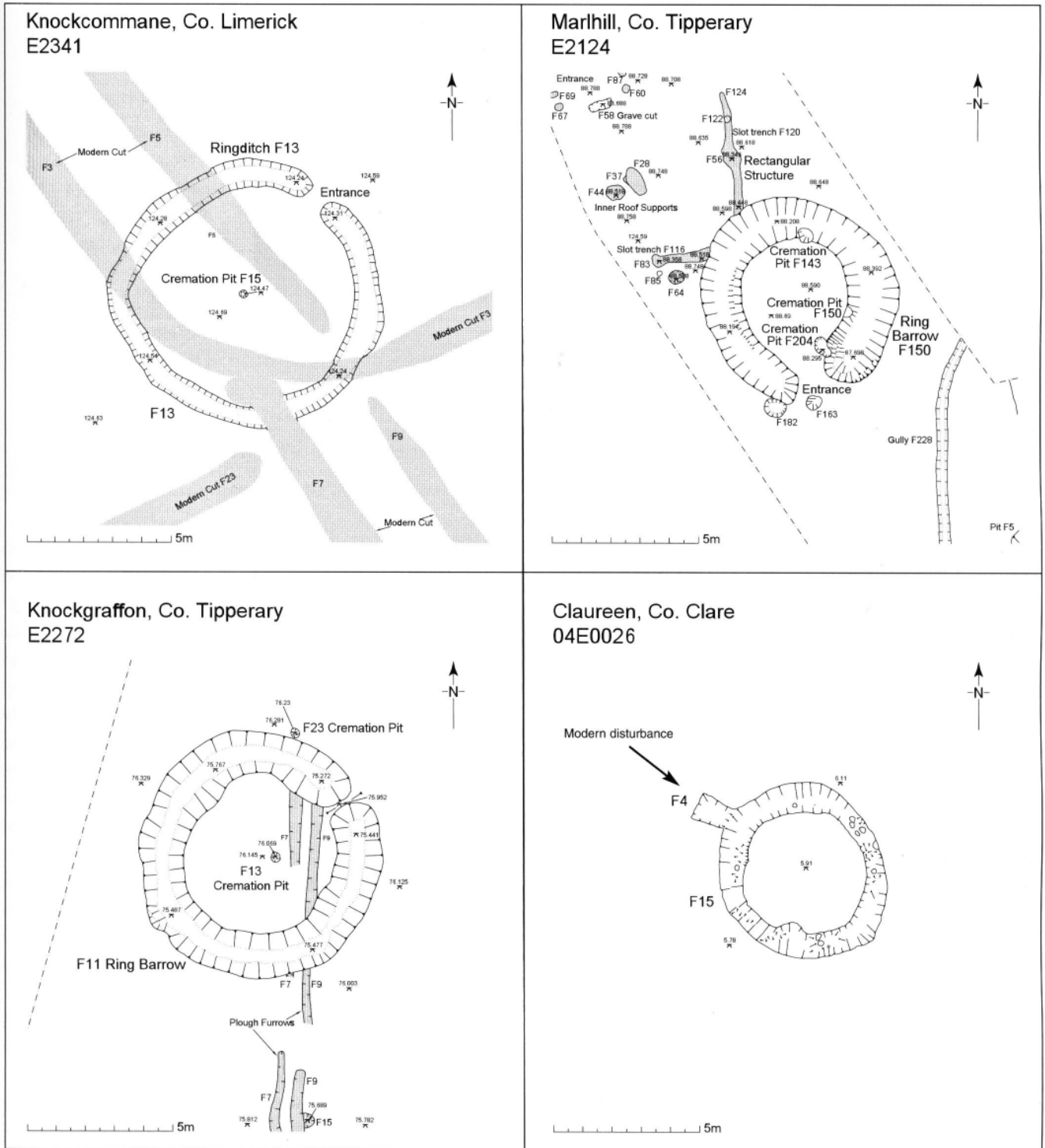


Fig. 5—Top left: Iron Age penannular ring-ditch at Knockcommane, Co. Limerick (Bernice Molloy, Margaret Gowen Ltd). Top right: Iron Age penannular burial ring-ditch at Marlhill, Co. Tipperary (Bernice Molloy, Margaret Gowen Ltd). Bottom left: Iron Age penannular burial ring-ditch at Knockgraffon, Co. Tipperary (Colm Moriarty, Margaret Gowen Ltd). Bottom right: Iron Age annular burial ring-ditch at Claureen, Co. Clare (Graham Hull, TVAS Ireland Ltd).

purposes and, other than secondary burials and some ditches being redefined or mounds added to, there is little evidence for subsequent alteration or alternative use.

Raftery (1981) observed that Iron Age cremated burials were considerably more likely to be associated with a burial monument than were inhumations, and this is reflected in the fact that three-quarters of the late Bronze Age and Iron Age cremated burial sites studied had a burial monument while this was true for only approximately one-third of sites with unburnt human bone (McGarry 2008b). This difference is most evident when burial ring-ditches are examined: three-quarters of all identifiable cremated individuals from the period were recovered from these monuments, but fewer than one-quarter of unburnt individuals were produced by them (and considerably less if only articulated inhumations are counted). Only three articulated unburnt burials have been recovered from within burial ring-ditches: one each at Cherrywood I (Ó Néill 2000 and pers. comm.), Rath (Schweitzer 2005) and the Rath of the Synods (O'Brien 1992, 131). (The ring-ditches/gullies at Claristown (Russell *et al.* 2002; McGarry 2007) produced substantially earlier radiocarbon determinations than the earliest central inhumation there (I. Russell, pers. comm.) and appear unlikely to have been burial monuments.) Only one burial ring-ditch created during the period did not produce burnt bone, and the absence at this monument, Rathdooney Beg 2 (Mount 1999), must be uncertain because it was only partly excavated, while the only burial ring-ditch that appears to have been constructed to accommodate an articulated inhumation was that at Cherrywood I (Ó Néill 2000 and pers. comm.).

The cremated individuals were almost always placed within the footprint of these monuments, and never only externally. Although almost as many burial ring-ditches have produced cremated burials from ditch fills as from central contexts, more individuals have been recovered from the latter (Fig. 6). Only five of the fourteen burial ring-ditches with surviving surface expression produced burials from within mound material rather than from pits beneath it (or, in one or two instances, spreads between mound and subsoil), but in some cases it is unclear whether mounds were substantially intact at the time of excavation. Some of the cremated bone in ditches, like that at Carbury A (Willmot 1938), had the appearance of deliberate discrete deposits, and a small number of these burials were clearly cut into the fill or the base of the ditch. In other cases the

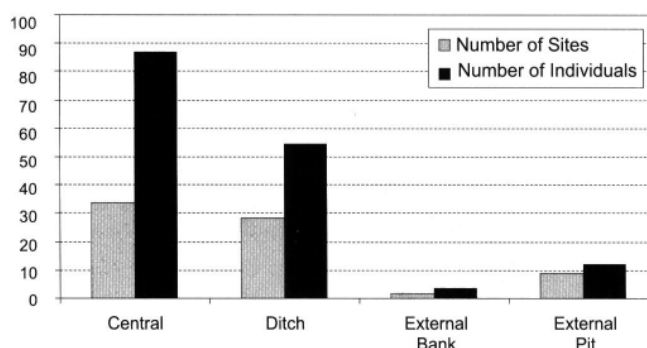


Fig. 6—Burial ring-ditch cremated burial contexts.
Note: some monuments had burials in more than one context type.

bone was widely dispersed or in amorphous horizontal spreads and could have derived from a disturbed central mound or pit. If, as seems very likely, most burial ring-ditches that were discovered through topsoil-stripping once had surface expression in the form of a fosse and a central mound or external bank, then the evidence from upstanding monuments indicates that the primary burial was probably normally central rather than in the ditch (Fig. 7). Erosion resulting from weathering, trampling and burrowing by animals, and damage caused by later human activity are likely explanations for some disturbed cremated bone from central contexts ending up in fosses. These ditches are usually deeper than central pits and therefore they are often the only features that survive, and this could create a false impression that they were often deliberately chosen as loci for burial deposits. The fosse was nevertheless considered most appropriate for some burials.

Cremated burials recovered from the central area of burial ring-ditches tended to be located towards the centre of that area, and the only discernible pattern amongst off-centre burials was that they were marginally more likely to be at north (where an entrance was least likely to be) and least likely to be at east (where an entrance was most likely to be). Similarly, and perhaps also owing to the most and least likely location of any entrance gap, cremated bone deposits in ditch fills were most likely to be at north and least likely to be at the eastern side of monuments.

There are few thorough synthesised studies of

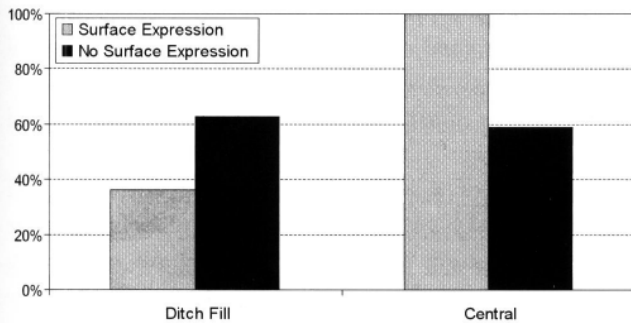


Fig. 7—Comparison between burial locations at burial ring-ditches with and without surviving surface expression (e.g. mound, ditch or bank).

Note: some monuments had burials in both the central area and the ditch.

contemporary British burial sites, and some of those were too early to benefit much from the application of radiocarbon dating techniques, but it would seem that burial ring-ditches were relatively uncommon during the late Bronze Age, when burials (or disarticulated bones) were more often inserted into earlier monuments or wet places, or placed in settlement-like contexts (Brück 1995). Some burials during the pre-Roman Iron Age were placed within dedicated burial enclosures, but these appear to have been generally rectilinear as at King Harry Lane, St Albans (Stead and Rigby 1989), or the 'square barrows' of Yorkshire (Harding 2004, 35–7; Whimster 1981, 75–129), and this also appears to have been the case during the Roman period (cf. Keegan 2002). Both rectangular and circular burial enclosures were created on the near Continent during the Iron Age (e.g. Stead *et al.* 2006) but the available information suggests that monuments similar to the Irish burial ring-ditches were not as dominant.

It would instead appear quite probable that the Irish late prehistoric burial ring-ditches represent a continuation of features identified in the Irish early Bronze Age, where James Eogan (2004, 56, 59, table 9.1) noted that one in four barrows was defined by a fosse, and 'ring-ditches' and 'ring-barrows' were also constructed. It is quite possible that the surface expression of burial ring-ditches varied over time (cf. Newman 1997, 153–60) and that a ring-barrow-like form was most dominant during the Iron Age (Raftery 1981,

198–202), but the lack of excavation (and dating) at surviving examples makes these matters difficult to resolve. It would also seem that surviving surface expression is likely to reflect differing but often unfathomable degrees of weathering and interference at different sites since construction, and, in the absence of a large-scale investigation programme, these uncertainties render subclassification based on surviving surface expression somewhat hazardous, perhaps even futile.

Burial ring-ditches increased in popularity during the course of late prehistory, from being the focus of approximately two-fifths of all c. 1300–400 BC burial sites to three-fifths during c. 400 BC–AD 400 (Fig. 4). Few securely dated similar examples are known to have been constructed after c. AD 400, from which time onwards burial enclosures increased substantially in average diameter and, in terms of monument proportions, had relatively narrower ditches that would not have supplied as much material for an external bank or for covering central burials. One reason for this change is likely to have been the need to accommodate complete unburnt corpses rather than the small deposits of cremated bone dominant earlier (McGarry 2007; 2008a; forthcoming).

Discussion

The vast majority of the individuals detected were buried in places that appear to have been set aside for the dead, possibly normally exclusively, rather than shared with the living. These were predominantly burial monuments, and burial ring-ditches are so dominant amongst these that most of the other monuments (cairns/mounds and standing stone arrangements) appear quite unusual. They are unusual not only because they are numerically few but also because a higher proportion of them were constructed at an earlier or uncertain date, and because they were more likely to have attracted the minority of burials that were unburnt.

It is difficult to argue emphatically for the 'sacredness' of the broadly circular architectural form of burial ring-ditches at a time when the circular form (or combinations of it) was ubiquitous and it does not therefore stand out from the mundane or profane (cf. Raftery 1994, *passim*). Nevertheless, it appears likely to have encapsulated meaning beyond the merely practical or functional, possibly involving the deliberate or tradition-related reproduction of ancestral monuments, or perhaps a reference to (now quite elusive)

contemporary structures related to habitation. The visual impact of an external bank and wide ditch might have alerted a visitor to the special nature of these places, and the rarity of non-funerary features within them suggests that they were normally respected, or perhaps feared. This brings to mind Brunaux's (1988, 33) interpretation of the ditch containing animal bones and objects at the Belgic sanctuary of Gournay-sur-Aronde as an 'unbroken apotropaic cordon' (although he did not clarify whether this was to prevent evil from the outside from getting in, or vice versa). Prehistoric perceptions of the apotropaic or thaumaturgic properties of ditches at these sites are difficult to demonstrate now, but the burials within these monuments, or the rituals associated with them, are likely to have been perceived as 'sacred' or otherwise related to the supernatural at the time, and it would seem likely that this would have been considered to have imbued the monument with some similar qualities.

Approximately one-fifth of the late Bronze Age and Iron Age burial sites captured had been used for burial earlier in prehistory, with Neolithic–middle Bronze Age burials being within *c.* 100m of those from the late Bronze Age and Iron Age. In some cases it might have resulted from happenstance, perhaps merely because similar locations or topographical features were perceived as desirable or appropriate. Most of those sites, however, are known to have had earlier burial monuments with surviving surface expression, and it would appear likely that the meaning of these was often understood. Evidence for the remodelling or replication of earlier burial monuments, such as at Kiltierney (Foley 1988) and Rathdooney Beg (Mount 1999), and potential 'votive offerings' in or at earlier tombs, as at Lough Crew and Newgrange (Raftery 1994, 180, 210–11), might also argue for affinities with ancestors or earlier customs, and possibly for attempts to reproduce or forge a common identity.

It is nevertheless noteworthy that there were only five or six sites where the confines of earlier monuments were reused for burial during the late Bronze Age and Iron Age, and, in contrast to the incidence during the early and middle Bronze Age (Grogan 2004), in only one case, at Ballyglass (Ó Nualláin and Greene, forthcoming), did this occur unambiguously within a megalithic tomb. This reluctance to place late Bronze Age and Iron Age burials within existing monuments is difficult to explain on a purely practical level, particularly as token cremated bone deposits and occasional pots would require minimal physical space and need have caused little or no physical disturbance to earlier burials. A parallel could be drawn with burial practices during the late

Bronze Age and Iron Age themselves, when, as at Ballydavis I (Keeley 1999), more than one monument was constructed on the same site despite ample 'vacant space' within an existing one, or, as at Loughbrickland (Large 2007), where a single medium-sized ring-ditch could have contained all of the burials placed in very small ones.

This might have been because of a general reverence and respect for earlier individuals buried there, or fear of the consequences of disturbing them (cf. Huntington and Metcalf 1979, 13–14), but it also seems plausible that the decision to create a new monument or grave rather than exploit an existing one might have been influenced by contemporary rituals or the needs of the survivors. We know very little of the rituals or ceremonies performed because, as Parker Pearson (1999, 49) noted, 'archaeologists cannot dig up funerals, only the deposits resulting from their terminating practices'. It might sometimes have been considered desirable, however, as in recent times, for mourners to undertake the physical labour of monument construction or grave-digging as acts of devotion, or perhaps a means of temporary distraction from grief. The investment or 'energy expenditure' involved in creating an 'unnecessary' monument could instead indicate that the individual was of high status (e.g. Parker Pearson 1999, 31 and references), perhaps a form of post-mortem 'conspicuous consumption', but it must also be a consideration that a new monument might have been necessary because the individual(s) in the existing one did not belong to the same collective identity (e.g. family or religion) as the recently deceased.

A corollary of this might be that conventions existed that encouraged the proximate burials of individuals belonging to the same and most relevant collective identity when alive. This might be somehow linked to the evident reluctance to deposit burials, particularly cremated burials, adjacent to rather than within the confines of late Bronze Age and Iron Age burial ring-ditches, and to the relative rarity of isolated pits containing a single cremated individual. Put another way, identity and burial places were probably related, and isolated burial beyond the confines of a burial monument or concentrated cemetery was probably generally undesirable.

Conclusion

It remains the case that the number of late Bronze Age and Iron Age burial sites captured thus far is considerably less than

from earlier and later periods, and from most places of similar geographical extent in western Europe. Although the number of burials has increased substantially since Barry Raftery wrote his 1981 paper, particularly as a result of the more widespread application of radiocarbon dating, it is still uncertain whether burials in the ground were very rare or are merely very difficult to detect now, and some observations and arguments must therefore be conditional because we do not yet know whether we are dealing with the normal or the exceptional. We can, nevertheless, say that the burial ring-ditch was the dominant type of artificial funerary monument, that cremated rather than unburnt burials were very much the norm within them, and that, as suggested by Raftery, the strongest overall patterns indicate continuity in, and development of, indigenous practices rather than considerable external influence or inward migration until shortly before the demise of Roman Britain. Cemetery populations were generally very small and, together with the usually modest scale and prominence of burial sites and monuments, this suggests that these places were normally of quite local relevance rather than a focus for substantial communities or geographical areas. It seems somewhat arguable that this might indicate a different type and degree of social organisation, or of inter-community relationships, from other times and places that have produced generally larger or more prominent cemeteries.

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Note

- (1) Carrowjames II 8 (Raftery 1940–1), Loughbrickland (Large 2007) and Tara (O'Sullivan 2005, 41, 51–3; Roche 2002, 59; Grogan 2008). This excludes Knowth, Co. Meath, where fewer than ten inhumations have been

dated by radiocarbon to the Iron Age (O'Brien 2003, 70 n. 9), but it appears possible that more than ten crouched or flexed burials there actually date from that time. The analysis also excludes burials of uncertain date at sites used during both c. 1300 BC–AD 400 and an earlier or later period.

References

- Brindley, A.L. 2007 *The dating of Food Vessels and Urns in Ireland*. Galway University Press.
- Brück, J. 1995 A place for the dead: the role of human remains in Late Bronze Age Britain. *Proceedings of the Prehistoric Society* 61, 245–77.
- Brunaux, J.L. 1988 *The Celtic Gauls: gods, rites and sanctuaries* (transl. D. Nash). London. Seaby.
- Cooney, G. and Grogan, E. 1999 *Irish prehistory: a social perspective*. Bray. Wordwell.
- Eogan, J. 2004 The construction of funerary monuments in the Irish Early Bronze Age: a review of the evidence. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metal: essays in honour of George Eogan*, 56–60. Oxford. Oxbow.
- Fahy, E. 1962 A recumbent stone circle at Reanascreena South, Co. Cork. *Journal of the Cork Historical and Archaeological Society* 67, 59–69.
- Fegan, G. 2006 Ballydavis: prehistoric complex. In I. Bennett (ed.), *Excavations 2003*, 284–5. Bray. Wordwell.
- Foley, C. 1988 An enigma solved. In A. Hamlin and C. Lynn (eds), *Pieces of the past. Archaeological excavations by the Department of the Environment for Northern Ireland 1970–1986*, 24–6. Belfast. HMSO.
- Gowen, M. 1988 *Three Irish gas pipelines: new archaeological evidence in Munster*. Dublin. Wordwell.
- Grogan, E. 2004 Middle Bronze Age burial traditions in Ireland. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metal: essays in honour of George Eogan*, 61–71. Oxford. Oxbow.
- Grogan, E. 2008 *The Rath of the Synods, Tara, Co. Meath: excavations by Seán P. Ó Riordáin*. Dublin. Wordwell.
- Grogan, E., O'Donnell, L. and Johnston, P. 2007 *The Bronze Age landscapes of the Gas Pipeline to the West: an integrated archaeological and environmental assessment*. Bray. Wordwell.
- Harding, D.W. 2004 *The Iron Age in northern Britain: Celts and Romans, natives and invaders*. London. Routledge.

- Huntington, R. and Metcalf, P. 1979 *Celebrations of death*. Cambridge University Press.
- Keegan, S.L. 2002 *Inhumation rites in late Roman Britain: the treatment of the engendered body*. British Archaeological Reports, British Series 333. Oxford.
- Keeley, V.J. 1999 Iron Age discoveries at Ballydavis. In P.G. Lane and W. Nolan (eds), *Laois: history and society. Interdisciplinary essays on the history of an Irish county*, 25–34. Dublin. Geography Publications.
- Large, S. 2007 Ballintaggert/Lisnagonnell: Neolithic and Bronze Age. In I. Bennett (ed.), *Excavations 2004*, 87–8. Bray. Wordwell.
- McGarry, T. 2007 Irish late prehistoric burial practices: continuity, developments and influences. *Trowel XI*, 7–25. Dublin. UCD.
- McGarry, T. 2008a Some exotic evidence amidst Irish late prehistoric burials. In O. P. Davis, N. M. Sharples and K. E. Waddington (eds), *Changing perspectives on the first millennium BC*, 215–34. Oxford. Oxbow.
- McGarry, T. 2008b Irish late prehistoric burials. Unpublished Ph.D thesis, University College Dublin.
- McGarry, T. (forthcoming) Late pagan and Early Christian burials in Ireland: some issues and potential explanations. In C. Corlett and M. Potterton (eds), *Death and burial in early medieval Ireland in the light of recent archaeological excavations*. Dublin. Wordwell.
- McLoughlin, C. 2002 Prehistoric remains at Kerlogue, Co. Wexford. *Archaeology Ireland* 16 (3), 16–19.
- Mogey, J.M. and Thompson, G.B. 1956 Excavation of two ring-barrows in Mullaghmore townland, Co. Down. *Ulster Journal of Archaeology* 19, 11–28.
- Mount, C. 1995 New research on Irish Early Bronze Age cemeteries. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age: proceedings of the Dublin conference, April 1995*, 97–112. Dublin. The Stationery Office.
- Mount, C. 1999 Excavation and environmental analysis of a Neolithic mound and Iron Age barrow cemetery at Rathdooney Beg, County Sligo, Ireland. *Proceedings of the Prehistoric Society* 65, 337–71.
- Newman, C. 1997 *Tara: an archaeological survey*. Discovery Programme Monographs 2. Dublin. Royal Irish Academy.
- O'Brien, E. 1992 Pagan and Christian burial in Ireland during the first millennium AD. In N. Edwards and A. Lane (eds), *The early church in Wales and the West*, 130–7. Oxford. Oxbow.
- O'Brien, E. 2003 Burial practices in Ireland: first to seventh centuries AD. In J. Downes and A. Ritchie (eds), *Sea change: Orkney and northern Europe in the later Iron Age, AD 300–800*, 62–72. Balcavies. Angus.
- Ó Néill, J. 2000 Science and Technology Park, Cherrywood: multi-period. In I. Bennett (ed.), *Excavations 1998*, 40–2. Bray. Wordwell.
- Ó Nualláin, S. and Greene, S. (eds) (forthcoming) Excavation of a centre court tomb and underlying house site at Ballyglass, Co. Mayo.
- O'Sullivan, M. 2005 *The Mound of the Hostages, Tara*. Bray. Wordwell.
- Parker Pearson, M. 1999 *The archaeology of death and burial*. Stroud. Sutton Publishing.
- Pearce, J. 1997 Death and time: the structure of Iron Age mortuary ritual. In A. Gwilt and C. Haselgrove (eds), *Reconstructing Iron Age societies*, 174–80. Oxford. Oxbow.
- Raftery, B. 1973 Rathgall: a Late Bronze Age burial in Ireland. *Antiquity* 47, 293–5.
- Raftery, B. 1981 Iron Age burials in Ireland. In D. Ó Corráin (ed.), *Irish antiquity*, 173–204. Dublin. Four Courts Press.
- Raftery, B. 1994 *Pagan Celtic Ireland*. London. Thames and Hudson.
- Raftery, B. 2004 Pit 119: Rathgall, Co. Wicklow. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metal: essays in honour of George Eogan*, 83–90. Oxford. Oxbow.
- Raftery, J. 1940–1 The tumulus-cemetery of Carrowjames, Co. Mayo. *Journal of the Galway Archaeological and Historical Society* 19 (1), 16–88.
- Roche, H. 2002 Excavations at Ráith na Ríogh, Tara, Co. Meath, 1997. *Discovery Programme Reports* 6, 19–82.
- Russell, I., Mossop, M. and Corcoran, E. 2002 Claristown 2: a cemetery and later cairn; excavations for the Drogheda Bypass–M1 Motorway. *Ríocht na Midhe* 13, 23–31.
- Ryan, F. 2000 Ferns Sewerage Scheme: multi-period. In I. Bennett (ed.), *Excavations 1999*, 300–2. Bray. Wordwell.
- Schweitzer, H. 2005 Iron Age toe-rings from Rath, County Meath, on the N2 Finglas–Ashbourne Road Scheme. In J. O'Sullivan and M. Stanley (eds), *Recent archaeological discoveries on national road schemes 2004*, 93–8. Dublin. National Roads Authority.
- Stead, I.M. and Rigby, V. 1989 *Verulamium: the King Harry Lane site*. English Heritage Archaeological Report

12. London. British Museum Publications.
- Stead, I.M., Flouest, J.L. and Rigby, V. 2006 *Iron Age and Roman burials in Champagne*. Oxford. Oxbow.
- Waddell, J. 1990 *The Bronze Age burials of Ireland*. Galway University Press.
- Waddell, J. 2000 *The prehistoric archaeology of Ireland*. Bray. Wordwell.
- Wait, G. 1995 Burial and the Otherworld. In M. Green (ed.), *The Celtic world*, 489–514. London. Routledge.
- Warner, R. 1998 Is there an Iron Age in Munster? *Emania* 17, 25–9.
- Whimster, R. 1981 *Burial practices in Iron Age Britain: a discussion and gazetteer of the evidence c. 700 BC–AD 43*. British Archaeological Reports, British Series 90i and 90ii. Oxford.
- Willmot, G. 1938 Three burial sites at Carbury, Co. Kildare. *Journal of the Royal Society of Antiquaries of Ireland* 68, 130–42.

The Sword in the Stone: previously unrecognised archaeological evidence of ceremonies of the later Iron Age and early medieval period

Conor Newman

An enduring symbol of the defiant Celt is the figure of Arthur, the boy whose destiny was writ large by his drawing from a stone the sword of kingship. An evocative motif to be sure, and one that is central to an Arthurian *oeuvre* of monumental proportions, covering the full gamut from legitimate scholarship to fantasy and conspiracy theory. Doubtless, Nennius would remain sanguine about what has become of his Arthur in the twelve or so centuries since he penned his *Historia Brittonum* (see Morris 1980), the historian in him probably approving of the position adopted by most scholars nowadays, which is to drop anchor a safe distance offshore from Tintagel. In discussing a genuine ceremonial tradition of swords, stones and kingship, therefore, this paper runs the risk of attracting the wrong sort of attention. Barry Raftery, of course, would say 'press on regardless', and so it is in this spirit that I offer up this somewhat speculative essay to a mentor and friend.

Introduction

This paper is intended to introduce ongoing research into the occurrence of blade marks on stones by describing the phenomenon, offering some explanations and indicating some avenues for future investigation. When not ignored altogether, such marks have been disregarded variously as the vestiges of vandalism, of ploughing and even of illiterate ogham; only very occasionally are they described as blade-sharpening grooves. The corpus of stones bearing such marks, however, is sufficiently distinctive to merit closer attention. The grooves themselves are typically straight, narrow and V-sectioned. Sometimes deepening along the middle of the groove, they clearly result from repeated sawings of a narrow metal blade back and forth across the surface of a stone, and under considerable downward pressure. The marks generally occur in groups and rarely, if ever, do they criss-cross one another, and then only at the furthest extremities of the groove lines where such is probably inconsequential. In so far as initial impressions last, it is worth mentioning at the outset that at first glance these marks look like slash marks made by a sword, which is why,

however unscientific it may be, I shall occasionally refer to them as sword marks or sword grooves in this essay. And while this impression, it will be proposed anon, is perhaps intentional—or at least not discouraged—it is an impression that logic at once disavows, as it does also the proposal that these are sword-sharpening grooves, for whilst drawing a blade, edge-on, along such a groove may give it a more pointed tip, it would blunt the blade and render the sword useless. Perhaps, then, this explains the patches of highly polished, smoothed surfaces that nearly always occur adjacent to the grooves, for these are surfaces that are clearly the result of a more orthodox sharpening action.

Another possibly important dimension of the stones bearing such marks is the unevenness and resultant rounded hollows on some of the surfaces where the blade grooves occur. I am not referring here to the very slight concavity acquired by some of the burnished surfaces but rather to the distinct, bowl-shaped hollows that resemble broadly those that otherwise characterise bullaun stones; the two phenomena may be thematically connected because blade grooves also occur on *de facto* bullaun stones.

The grooves and polished surfaces can, of course, be explained in quite prosaic terms as later manifestations of the prehistoric *polissoirs*, the far wider grooves that are thought to have been caused by the sharpening and smoothing of polished stone axes (e.g. Blanc *et al.* 1995). When the range of stones in Ireland and Britain upon which the sword marks occur is considered, however, the inquiry takes an altogether more intriguing turn, for the list comprises in the main cross-slabs, high crosses, bullaun stones, ogham stones, inauguration/assembly stones and occasionally church buildings, e.g. door jambs, quoin stones, etc. These are no ordinary stones, available willy-nilly for people to scar so rudely. On the contrary, they are icons of tribal and cultural identity, and, moreover, most of them are sacred. Only very rarely is the associated ornamentation or inscription damaged by any of these grooves, and in only one or two cases are the bullaun hollows scarred. Apart from the ecclesiastical theme dominating this range, another motif of importance is that of boundaries, for in one sense or another all of these stones

mark boundaries or points of transition, be they political and religious boundaries or personal, biographical transitions from, say, layman to king.

In Britain, as we shall see, the phenomenon seems to be largely restricted to Wales and Scotland. In Ireland stones thus marked appear to be quite widespread, though the present survey is far from complete. To date there is only one place known to the writer where the stones in question can be guardedly described as otherwise nondescript, namely a collection of four stones (which may well be fragments of one big stone) built into the wall of the disused cathedral at Moone, Co. Kildare. While the marks, in and of themselves, remain broadly undatable, the stones upon which they occur range in date from the fifth/sixth century AD to the twelfth century. Much later specimens are known but these are probably an unrelated phenomenon.

Case-studies

A number of interesting themes and questions emerge from this brief overview, but before these can be pursued further it would be useful to examine in a little more detail select examples of these sword marks.

Cross-slabs

Thus far, blade grooves occur with the greatest frequency on freestanding cross-slabs or cross-inscribed pillar stones, where, as a rule, they are confined to the lower portion of the stone, more often than not close to ground level. The finest such Irish example is undoubtedly the Kilnasaggart pillar stone in south County Armagh (Pl. 1), which is graced with a multiplicity of crosses and a quite lengthy Irish inscription on the south face commemorating one Ternoc son of Ceran, who, the inscription tells us, bequeathed the place to the protection of Peter. Ternoc is identified as the man whose obit appears in the *Annals of the Four Masters* under the year AD 714, suggesting an early eighth-century date for the pillar.

In addition to having various burnished patches, the lowermost quarter of the pillar is scarred with at least 55 V-sectioned grooves of varying length and depth. The grooves are confined to the north face of the slab. (The deep groove near the base on the south side mentioned by Macalister (1949, 114–15) is not a sword mark; see Petrie 1878, 27–30 and pl. XIX. This is now below the grass-line and has not



Pl. 1—North face of the cross-inscribed pillar at Kilnasaggart, Co. Armagh, decorated with no fewer than eleven crosses, ten of which are encircled. (Inset: Some of the 55+ blade grooves scored into the base of the pillar. This surface is also smoothed or burnished.)

been examined by the writer.) The small circular enclosure wherein the pillar now stands dates from the nineteenth century (Reade 1856–7; Ua Cuinn 1908–11). Whether revealed through excavation or ground survey is unclear, but Reade (*op. cit.*, 317) reports, with illustration, that the inscribed pillar stood on the northern edge of a unique arrangement of two concentric rings of radial long-cist graves. There is no clear indication of these on the surface today, though round and about the pillar is strewn haphazardly a collection of small stones and slabs. Some of the stones are rudely hollowed out and now collect rainwater, others are inscribed with rough crosses.

Virtually nothing is known about the early church associated with this cross-inscribed pillar (see Petrie 1878, 27–30). Monumental slabs such as these might have marked the boundary or entrance to a monastic or church enclosure, though of this one nothing remains. Present



Pl. 2—Left: Cross-slab from Nash Manor, Glamorgan. In addition to the more typical pattern of horizontal and diagonal blade marks across the lower part of the slab, a change to vertical grooves occurs slightly higher up the slab, extending right up to the base of the cross. Right: Memorial slab from Penmachno, Gwynedd, with deep blade grooves across the base (both images from Redknap 1991, pls on pp 48 and 58 respectively).

evidence suggests, therefore, that the pillar marks a possibly exceptional cemetery. The broader location of this slab, however, is altogether more informative, for it stands squarely in the middle of a narrow pass that is one of just a handful of gaps in the 65-million-year-old volcanic ring-dyke that surrounds Sliabh Gullion (the celebrated 'Ring of Gullion'; see Stott 1997) and forms the virtually impregnable southern border of Armagh. Known as the 'Gates of the North', through here once ran the Sligh Midhluachra as it wound its way from Tara to Dunseverick on the north Antrim coast. Stated simply, it would not be possible to make one's way along this pass without encountering the cross-inscribed pillar, and it is clear that the slab and the graves around it mark out this pass,

signalling to the traveller that they are now in border territory. Whereas blade marks such as these are capable of emitting very clear signals of ownership and the force of arms, the importance of boundaries as places of assembly where laws and treaties were enacted and renewed suggests that the blade marks on the stone should be considered against this backdrop as well.

Other slabs that compare closely with the Kilnasaggart pillar in respect of the blade grooves and burnished surfaces, and their location on the slab, occur in Wales, namely at Nash Manor, Glamorgan, and Penmachno, Gwynedd (Pl. 2; Nash-Williams 1950, nos 250 and 104 respectively). The Nash Manor cross-slab probably dates from the eighth or ninth century, whereas the Penmachno memorial slab bears a Latin inscription that sustains two different readings. It is evidently an early slab, and one reading of the horizontal line as IN TE(M)PO[RE]/IUSTI[NI]/CON[SVLI(S)] (the time of Justinus the Consul) suggests a date as early as c. AD 540 (Redknap 1991, 53).

High crosses

A far later date is implied for the blade grooves that occur on the base of the Market Cross at Kells, Co. Meath (Pl. 3), which is generally dated to the ninth century AD. The grooves, of which there are over 30, occur around the top of the base stone, an area that is not ornamented but is uncommonly undulant, with both the bowl-like concavities mentioned already and burnished or smoothed surfaces. The occurrence of the blade grooves on the Market Cross raises the possibility that similar score marks visible on the *dextra Dei* arm of the unfinished cross (Pl. 4) in the grounds of St Patrick's Church at Kells represent the same phenomenon, applied perhaps when the cross lay recumbent and abandoned.

Though considerably more eroded, V-sectioned grooves, and an equally undulant surface, also occur on the base of the south cross at Lorrha, Co. Tipperary (Pl. 5), which now supports only a fragment of the original shaft. The fragmentary condition belies what was clearly once a highly accomplished cross. Though the grooves on the Lorrha base have lost their original crispness owing to erosion, there can be no doubt that they represent the same thing we see at Kells. Once again, Wales provides a comparable specimen, with Redknap and Lewis (2007, 357) observing that the upper surface of the cross base at St Cynwyd's Church, Llangynwyd, Glamorgan, '... is much abraded by grooves



Pl. 3—Market Cross, Kells, Co. Meath. There are over 30 blade marks on the upper surface of the cross base. The surface is also extremely undulant, and there are a number of patches of burnishing which are the results of sharpening.



Pl. 5—Badly eroded blade marks, burnished surfaces and hollows on the base of the south cross at Lorrha, Co. Tipperary.



Pl. 4—The unfinished cross in the grounds of St Patrick's Church, Kells, Co. Meath. Blade marks occur on the panel on the *dextra Dei* arm but can really only have been cut into the stone when it was lying recumbent.

caused by secondary use for sharpening'. Moreover, since it might be considered as a high cross on the basis of its height alone, the late tenth-century disc-headed cross-slab known as *Maen Achwyfan* (Stone of Lamentations), Clwyd, might also be included in this category, for it too has the remains of a number of blade marks along the damaged left lateral of the lowermost, undecorated panel (see Redknap 1991, 41; Nash-Williams 1950, no. 190). Thus, when considered alongside the Irish specimens, these Welsh examples can perhaps now be seen to adhere to an emerging pattern.

Inauguration/assembly stones

A quite different context is provided by the Mullaghmast stone. Now in the National Museum of Ireland (see Kelly 1983), this assembly stone originally stood on Mullaghmast Hill (*Maistiú*), Co. Kildare (see map in Fitzgerald 1891–5), home to Áine, one of the fairy queens of the mythological Tuatha Dé Dannan, and seat of the Uí Muiredaig sept of the



Pl. 6—Blade marks on the left-hand side of the Mullaghmast pillar stone (now in the National Museum of Ireland).



Pl. 7—Blade marks and burnished surface on the top of the Mullaghmast pillar stone (now in the National Museum of Ireland).

Leinster dynasty the Uí Dúnlainge (Byrne 1973, 150). Mullaghmast is traditionally regarded as the burial place of Ailill, son of Dúnlaing, buried upright facing his old enemy, Lóeguire, king of Tara (*ibid.*, 65, 194). The stone is embellished with beautiful, raised curvilinear ornament of the type found on sixth-century AD Irish metalwork, and friezes of incised, compass-drawn circles and tangential arcs familiar from the pages of later manuscripts and bone objects. The stone appears to be otherwise unshaped and to be naturally square in section (see Raftery 1984, 298–300, fig. 147). It is decorated on all but one side that, for the sake of convenience, can be thought of as the back of the stone. Thus, deep V-sectioned grooves occur on the top and on the two latera. On the left face there are four deep grooves, two of which are scored into the base-line of a frieze of nested triangles (Pl. 6) near the top of the stone; the other two cut diagonally across the edge of the circles-and-arcs frieze. Similarly, the incised ornamentation on the right face is also affected by one long diagonal groove and two far slighter ones. The two deep grooves on the top of the pillar (Pl. 7) are the most striking, however, not least because they are offset against a large burnished area which has an extra lustre from being touched and rubbed by passers-by. Areas of burnishing also occur on the right arris of the stone, close enough to ground level that I am disinclined to think that they could be the product of animals scratching.

The significance of the occurrence of these marks on an inauguration or assembly stone is self-evident and brings to

mind similar marks that occur on the so-called AII stone at the *caput* of the MacDonald lordship at Finlaggan on Islay in the Southern Hebrides. First noted by Pennant in 1776, this quartzite boulder was rediscovered in 1997, half-submerged on the west shore of Loch Finlaggan (Caldwell 2003, 72–3, fig. 28). The presence on a nearby stone of the clearly inscribed letters AI (in Lombardic style) is interpreted as an abbreviation of Angus I, and has perhaps fuelled speculation that the far more irregular marks on the AII stone are also lettering, in this case commemorating Angus II. Caldwell concedes, however, that such a reading is without sound basis, but does allow for the possibility that these stones were indeed associated with the rituals of lordship and may have been where the lord of the Isles sat on important occasions. Unlike the AI inscription, the putative 'II' on the AII stone lacks cross-bars and the 'A' is quite malformed. In short, the marks are amenable to alternative interpretation, and in light of the evidence from Ireland one wonders whether they might be sword marks. Having now seen the Kells and Mullaghmast specimens, David Caldwell kindly informs me that the incisions in the AII stone are deep and V-shaped in cross-section but notes that there is no burnishing of the surface of the stone as there is on the Irish specimens. Though a boundary of no special significance from the beginning of the sixteenth century onwards, he has outlined to me the possibility that the AII stone may once have marked the boundary between the landholdings of Portaneilean and Laichtcarlane.

Bullaun stones

Although their association with early church sites is unequivocal, the true purpose of bullaun stones remains something of a mystery. Siting is clearly relevant to how they functioned, insofar as they are sometimes found near the boundaries of church enclosures or in places associated with a tradition of pilgrimage or *turas* rounds. Lichen unfortunately masks, for the most part, the blade marks on a previously unrecorded bullaun stone, now turned sideways and enveloped in a drystone field wall, near Rathgureen on the Maree peninsula, Co. Galway (Pl. 8). The longest of the grooves runs right across the basin of the bullaun itself. Nearby to the west is another bullaun stone, and about 75m beyond this a possible ecclesiastical enclosure. A few metres to the north of the scored bullaun stone are a holy well and a souterrain.

Bullaun hollows are normally positioned on a horizontal surface of the stone, where, invariably, they collect rainwater or sometimes hold rounded 'prayer' stones, turned by the pilgrim upon completion of this prayer station. Occasionally, however, bullaun stones are turned sideways. A splendid specimen in the church grounds of Killedeas, Co. Fermanagh, with multiple bullaun hollows is now standing entirely upright in order to display a magnificent encircled cross on the opposite side of the stone (Newman and Walsh 2007). This suggests that the bullaun stone *per se* was abandoned sometime during the eighth or ninth century AD. Also standing on its edge is another previously unrecorded bullaun stone at Derrymore, near Inagh, Co. Clare (Pl. 9), identified by Mr P. J. Clancy and brought to my attention by Clodagh and Michael Lynch. Here to the right of two well-formed bullaun basins are five V-sectioned score marks. The association of blade marks and bullauns is worthy of further attention, particularly given the occurrence of bullaun-like hollows among the sword marks on the Kells and Lorrha cross bases. It remains utterly unclear why, or even how, these surfaces were made undulant and dished, but perhaps an avenue to explore here is the tradition that associates bullaun stones with *turas* or pilgrimage rounds, since the sword grooves themselves, as we shall see, seem also to refer to a cyclical or repetitive event; both actions speak to the invocation of divine intervention.

Literary and historical accounts

We are fortunate in having a couple of early documentary



Pl. 8—Blade marks, obscured somewhat by lichen, on a bullaun stone, Maree peninsula, Co. Galway.

references, literary and historical, that seem not only to explain the grooves themselves but to evoke something of their symbolism as well. In an episode in *Acallam na Senórach* Patrick and Cailte are guests of one Coscrach na Cét, hospitaller to the king of Leinster. Coscrach asks Cailte how a peculiar stone near his fortress got its name:

'Why is this mighty stone here on the lawn called the "Rock of the Weapons"? 'This is the rock' said Cailte, 'on which the *Fian* used to sharpen their weapons each year on the day of *Samain* and the edges they put on them did not dull in battle, in skirmish or in fighting. On that rock was the best token of peace that existed in Ireland and Scotland in the reigns of Conn and Art and Cormac and Cairbre Lifechair, the ribbed armlet containing eight ounces of gold.'

This prompted Cailte to recite the following verse:

Know you Cosrach, this stone that kings embraced,
To which Finn of Almu frequently came?

Whetstone of the Weapons, its hosts are all dead,
Though the stone, ever since, remains in its place.

Great spears of destruction and warriors' swords,
By this stone well-sharpened at Samain each year.

(trans. Dooley and Roe 1999, 125)



Pl. 9—Mr P. J. Clancy beside the bullaun stone bearing blade marks at Derrymore, Co. Clare (photo: Michael and Clodagh Lynch).

The literary nature and licence of the text notwithstanding, this is indeed a remarkable account and explanation of a stone that clearly bore the marks of repeated sharpenings. It describes an annual ritual enacted on a special religious occasion and resulting in magical, lasting sharpness. Moreover, the stone is here characterised as a treaty stone of sorts, a monument to peace, thereby introducing the concept of the marking or foreswearing of oaths, and the possibility that the commemoration and renewal of such might be marked in a tangible and public way.

Another literary text, *Aisling Meic Conglinne* ('The Vision of MacConglinne'), places such a stone in a royal household and introduces motifs that resonate with descriptions of the inaugural cry of the Lia Fáil, as well as the large whetstone-sceptre, such as the one from Sutton Hoo, designed to be rested on the knee (e.g. Enright 2006).

MacConglinne rose and went hastily, impatiently, like a fiend, in his furious rush and warlike bold pace across

the royal house. And there was a huge block and warrior's stone of strength on which spears and rivets were wont to be fastened, and against which points and edges were wont to be ground; and a warrior's pillar-stone was that flag. And he lifted it on his back and bore it to the place where he had been before on the bed rail, thrust the upper end of it in his mouth, rested the other end of it on his knee, and began grinding his teeth against the stone.

What the learned, and the elders, and the books of Cork relate is, that there was no one in the neighbourhood of the dún inside or outside, that did not hear the noise of his teeth against the stone, though it was of the smoothest.

(trans. Meyer 1892, 46)

A text with a different historical pedigree is the late seventh/early eighth-century text *Baile Chuin Chedchathach*, one of the earliest regnal lists of Tara. Recently edited in Edel

Bhreathnach's *The kingship and landscape of Tara* (2005), it contains the following stanzas:

- | | |
|---------------------------------|------------------------------------|
| 19. Áed Allán bais bith | Áed Allán who will strike a blow |
| 20. Bid fuiri fir
nDiermata. | Diermait's truth will be upon her. |
| Dis-ngig Diermait día | Diermait, by whom courts will |
| rirsetar | request it. Glorious savage |
| lis . Lond daig án | flame, |
| con- fri | he drove towards Irthine. |
| Irthine –n-acht. | |
| 21. Ailt fuiri Féchno. | A blade over her Féchno. |

I am very grateful to Dr Bhreathnach for providing me with the following commentary. The text includes two phrases that might suggest the idea of striking a sword against a stone as part of the seizing of the kingship of Tara. Of the Uí Néill king Áed Allán (d. 598) the text states *Áed Allán bais bith* 'Áed Allán who will strike a blow', and of the king Fergal mac Maíle Dúin (d. 722), who is regarded unfavourably in the text, the phrase *Anflaith for a mbia bith trom* 'an unking who will strike a heavy blow' is used (Bhreathnach 2005, 84 (19), 86 (33)). This may be a metaphorical allusion to striking a blow on the Lia Fáil, and hence the screech that emanated from the Lia Fáil when recognising the legitimate heir to the kingship of Tara may be a metaphor for the sound of the grinding sword against the stone. The phrase *bais bith* is a *figura etymologica*, deriving from *bened*, meaning 'to strike a blow'.

A connection between the archaeological phenomenon of V-sectioned grooves on the one hand and these historical and literary accounts on the other seems probable and will surely reward further investigation. Apart from the textual evidence, the multiplicity of such grooves alone suggests a recurring event, a ceremony, invoking or underwritten by a union of powers, those represented by the church and those of secular authority. The symbolic charge of such an occasion must have drawn on the fact that the stones in question were, in the main, recognised Christian monuments. It may also have derived from the use of ceremonial or ancestral swords, and in particular the historical and symbolic importance attached to the act of sharpening them, which is testified to by, among other things, the existence of whetstone-sceptres. The corpus of poems in praise of swords—such as Tadhg Dall Ó hUiginn's *Séad Airm* ('A

Precious Weapon'; Knott 1922–6) and Dallán mac Móre's tenth-century *Mochen a chlaidib Cherball* ('The Song of Carroll's Sword'; Meyer 1899)—suggests that the historical renown of a royal sword accrued through heroic succession: Cerball mac Muirecáin's sword belonged to previous heroic kings of Leinster, and was handed over symbolically from one generation to another at ritual sites such as Carman, the primary *óenach* site of Leinster (Bhreathnach 2007, 36–7). Rock, on the other hand, may have made for a better material to symbolise the qualities of immutability and incorruptibility suited to the concept of a kingship that boasted divine imprimatur. According to Bhreathnach (pers. comm.), however, the sword and the ceremonial stone could also be combined for a quite different end, as reflected in the annalistic entry (AFM *s.a.* 732) concerning the beheading of Áed Rón, king of the Ulaide, on Cloch an Chommaig in front of the church at Fochart, Co. Louth (*benaid a chend de for Cloich an Chommaigh i ndorus teampaill Focháirde*): if the combined magic of the stone and sword upheld the office of king, it also had the power to undo it.

The mundanity of the humble whetstone belies the fact that superior symbolic importance attached to some specimens, the so-called 'whetstone-sceptres', and these were an intimate item of royal regalia. The symbolic potency of a whetstone-sceptre was undoubtedly related to the ceremonial sword and the capacity of the sceptre, in symbolising the sharpness of the royal sword, to represent also the vitality and keenness of the kingship itself. We might profitably consider the implication of the above-quoted passage from *Acallam na Senórach*, namely that lasting, magical sharpness resulted from a ceremonial communion of special whetting stones and swords gripped in the hands of the rightful, of those divinely chosen, or fated, to be heroes or hero-kings. That such could remain in the realm of the symbolic is suggested by the magnificent whetstone-sceptres from Sutton Hoo, East Anglia, and Newtownlow, Co. Westmeath, which appear never to have been used to sharpen blades. On the other hand, the *de facto* occurrence of blade grooves and burnished surfaces on crosses, cross-slabs and so on suggests that this was also a living tradition, surrounding real ceremonial events and producing sword grooves that were distinctive, visible and public.

The ostensibly contradictory actions that produced respectively the blade grooves and the burnished surfaces are reconcilable when visualised through the prism of ritual and ceremony, and the notion that the outcome might be a highly symbolic lasting, sacral sharpness. Against such a

backdrop the stone is best seen not as passive but as an object of special agency that has the ability to gift, lend or bestow sharpness unto the sword. The giver of sharpness, it is also the source to which the sword must be returned so that its life-force might be renewed. Blunting the sword against the stone—the V-sectioned grooves—may have symbolised a returning of the potency of the sword to the stone, and accordingly the burnished surfaces may represent renewal of the blade, and with it revitalisation of the lineage and of the kingship, or indeed renewal of oaths, treaties, alliances and laws. In short, the sword-as-potent-weapon is drawn from the stone by the rightful and just king. Where the stone is a Christian monument, the imprimatur of the highest Christian authority is called upon to bear witness to the event; in the case of older monoliths, more ancient deities may have presided over this renewal of power. A sword thus charged was then available for use in other ceremonies because its mark was the seal of authenticated authority.

Deeper traditions: making one's mark in late Iron Age Ireland

While one can appreciate that collectively such marks might be conceived of as mementoes of reaffirmed treaties and oaths, or indeed as a roll call of ancestral kings, we should not lose sight of the fact that each individual stroke bears testimony to a historical person and is therefore their mark or signature. In the final part of this essay I want to briefly explore a wider tradition of making one's mark in this way by examining some of the potentially earliest examples of blade marks on stones.

The earliest datable score mark known to me occurs at the start of a partially Latinised Primitive Irish inscription (for summary see Redknap and Lewis 2007, 538–9) on a reused memorial(?) slab from the Roman town of Wroxeter, near Shrewsbury in Shropshire (Pl. 10). The full inscription across three lines reads:

CVNORIX
MACVSMA
[Q]VICO[L]I[N]E

(Hound-/Wolf-king of the son of the tribe of Holly).

Wroxeter (*Viroconium Cornoviorum*) was one of the comparatively few Roman towns that continued as a

commercial centre into the fifth century. Possibly the capital of the early medieval kingdom of Powys, it may have been ruled for a brief time by Cunorix, who was probably of Irish descent. Jackson regarded the inscription as dating from the fifth century and speculated on the possibility that Cunorix might have been a *foederatus*, settled in Wroxeter (Wright and Jackson 1968), but more recently Swift (1997, 54ff) and others have argued on linguistic and historical grounds for a date closer to the sixth century. Regardless, it is tempting to speculate that the inscription was carved by a literate countryman at Cunorix's behest, and that, using his sword, Cunorix then made his own mark, his signature, on the stone beside his name (a deep blade groove and burnished surface also occurs on the largest stone at Mitchell's Fold Stone Circle, on the Shropshire–Powys border; overlooking Wroxeter from the west, this monument arguably marks one of the passes into Powys, and lies close to the projected line of Offa's Dyke).

Depending on how it is to be interpreted, such may not be unprecedented because a similar blade groove also occurs on the ogham stone from Killeen Cormac, Co. Kildare (Fitzgerald 1899–1902; Swift 1997, 57, 90–1). The ogham inscription reads OVANOS AVI IVACATTOS and is preceded by a single, definitive blade groove before the first ogham letter (Pl. 11). The blade mark itself is quite different from the ogham letters, which are oblong and pecked into the surface, thus raising the question: is this the actual mark or signature of Ovanos?

The precisely located, single blade marks at Wroxeter and



Pl. 10—Single blade mark prefixing the word CVNORIX on the slab of the same name from Wroxeter, Shropshire (damage visible to the right is recent and may be where the stone was struck by the plough that unearthed it).



Pl. 11—Ogham stone from Killeen Cormac, Co. Kildare (now in the National Museum of Ireland). A single blade mark precedes the ogham inscription of oblong strokes. The Killeen Cormac stone is unique in Ireland on account of having a Latin inscription—part of which is visible on this photograph—carved vertically up the face of the slab. Three very short blade grooves occur on the arris of the stone near the stem of the third stroke of the letter V.

at Killeen Cormac allow for the possibility that they represent personalised signatures. Elsewhere, however, because of either their position on the ogham stone or the fact that there are multiple blade marks—e.g. the single, 23cm-long, V-sectioned groove across the face of the now-broken ogham stone in the grounds of the church of St Ciarán of Saighir at Tullaheerin, Co. Kilkenny (Anon. 1854–5), or the multiplicity of V-sectioned grooves on the ogham stone from Portmarnock, Co. Dublin (Macalister 1945, 21)—different explanations are demanded. Is it possible that in the case of the latter the genealogical aspect of the ogham inscriptions recommended them as appropriate places to commemorate important political and historical events, recording successive ceremonies with a blade mark?

The blade marks on the ogham stone (Pl. 12) removed



Pl. 12—Ogham stone from Coolineagh, Co. Cork. Extracted from the wall of St Olan's Church and presented to Royal Cork Inst. (now University College Cork) in 1838. The inscription reads VIDETT[]S (Vidett[o/a]s) and is partially over-scored by two deep blade grooves, alongside which are a number of slighter blade marks.

from the wall of St Olan's Church, Coolineagh, Co. Cork, and now on exhibition at University College Cork (for inscription see McManus 2005, 21), remind us of how closely such marks compare in form to ogham letters, which are sometimes so narrow or V-sectioned that they were clearly not carved or pecked out but were made by drawing a blade back and forth across the edge of the stone. Such similarities may not be entirely coincidental and may actually speak to a common ancestry. Notwithstanding what has been written about the broader genesis of stroke alphabets such as ogham and runes (e.g. McManus 1991, 6–18; Moltke 1985), the question now arises as to whether it is possible that the inventor of the ogham cipher chose to adopt a stroke alphabet in the knowledge that such would segue into an already existing tradition of making one's

mark, one's sign, with the slash of a blade. Or could it have been the other way around, that the stroke alphabet inspired the practice of making one's sign this way? The significance of a person's signature cannot be understated, particularly if it occurs on an object or in a place that has, through association, become historically and/or symbolically charged. The act of writing one's name out in full is likely to acquire even greater symbolic potency when cultural meaning is embedded in the very form of the letters themselves.

The chronological range of the stones bearing sword marks is impressive. Although the marks themselves are undatable, the available evidence, historical and archaeological, suggests that this was a tradition that endured for some centuries, with the latest specimens dating from the twelfth century, such as those occurring on a jamb stone of the door of the church of St Multose, Kinsale, Co. Cork (Ní Ghrádaigh 2003). Another possible example occurs on a cornerstone of the parish church of SS Mary and David at Kilpeck, Herefordshire, Wales, built around 1140 (Karolina Ploska, pers. comm.). It may yet prove significant that the earliest-dated stones, like the Wroxeter memorial and some of the ogham stones, have only one or two such grooves, whereas the later-dated, demonstrably Christian stone monuments tend to have multiples of such markings. Trending such as this may be indicative of the evolutionary trajectory of the tradition as it moved from one domain into another, acquiring along the way new aspects such as the inclusion into the ritual programme of actions surrounding the employment of the bullaun-like hollows. It is possible, therefore, that this distributional pattern is in fact tracking the increasing involvement of the church in secular affairs during the early medieval period: what may have started out in the fifth or sixth century as a peculiarly secular ritual might have been commandeered and transformed by the church, which saw to it that ancient memorial stones were replaced by Christian ones just as the ancient gods were superseded by the new, Christian one. In prescribing the ideals of kingship and the exercise of royal functions, particularly in the area of legislation, the church gradually assumed authoritative primacy in the secular world. As Bhreathnach observes, 'kings appear to have often sought the assistance of churchmen to resolve difficult situations and to have acted jointly with them in imposing both ecclesiastical and secular legislation on wide geographical areas. The *fir flathemon* of *Audacht Morainn* remained a basic concept but needed the blessing of the church to flourish' (Bhreathnach 2007, 26).

The motif of a sword that can be drawn or sharpened only with the aid of divine intervention or magic permeates this examination in one guise or another, bringing us back to the image of Arthur. In her definitive treatment of the sword in Anglo-Saxon England, Ellis Davidson (1962, 142) suggests that the tradition of a sword, like Excalibur or Gram, 'secured in some way so as to seem impossible to draw' may be contained in the unique term *fetelhilt*, which, though appearing in the story of Beowulf, does so in a way that fails to shed light on its original meaning. This essay goes one step further in suggesting that this was not just a literary motif but may have found expression in the deceptively simple act of drawing a blade across the surface of a stone.

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References

- Anon. 1854–5 Transactions. *Journal of the Royal Society of Antiquaries of Ireland* 3, 86.
- Bhreathnach, E. (ed.) 2005 *The kingship and landscape of Tara*. Dublin. Four Courts Press.
- Bhreathnach, E. 2007 Perceptions of kingship in early medieval Irish vernacular literature. In L. Doran and J. Lyttleton (eds), *Lordship in medieval Ireland. Image and reality*, 21–46. Dublin. Four Courts Press.
- Blanc, C., Certain, F. and Soust, J. 1995 Polissoirs et affutoirs de la Vallée d'Ossau (Pyrénées-Atlantiques). *Archéologie des Pyrénées occidentales et des Landes* 14, 70–84.

- Byrne, F.J. 1973 *Irish kings and high-kings*. London. Batsford.
- Caldwell, D. 2003 Finlaggan, Islay—stones and inauguration ceremonies. In R. Welander, D. Breeze and T. O. Clancy (eds), *The Stone of Destiny: artifact and icon*, 61–76. Edinburgh. Society of Antiquaries of Scotland.
- Dooley, A. and Roe, H. 1999 *Tales of the Elders of Ireland: Acallam na Senórach*. Oxford University Press.
- Ellis Davidson, H.R. 1962 *The sword in Anglo-Saxon England*. Woodbridge. Boydell Press.
- Enright, M. 2006 *The Sutton Hoo sceptre and the roots of Celtic kingship theory*. Dublin. Four Courts Press.
- Fitzgerald, Lord W. 1891–5 Mullaghmast: its history and traditions. *County Kildare Archaeological Society Journal* 1, 379–90.
- Fitzgerald, Lord W. 1899–1902 Killeen Cormac. *County Kildare Archaeological Society Journal* 3, 149–63.
- Kelly, E.P. 1983 Catalogue entries in M. Ryan (ed.), *Treasures of Ireland: Irish art 3000 BC–1500 AD*. Dublin. Royal Irish Academy.
- Knott, E. 1922–6 *The bardic poems of Tadhg Dall Ó hUiginn, 1550–1591*, vol. 1. London. Irish Texts Society.
- Macalister, R.A.S. 1945 *Corpus inscriptionum insularum Celticarum*, vol. 1. Dublin. Irish Manuscripts Commission.
- Macalister, R.A.S. 1949 *Corpus inscriptionum insularum Celticarum*, vol. 2. Dublin. Irish Manuscripts Commission.
- McManus, D. 1991 *A guide to Ogam*. Maynooth Monographs 4. Maynooth.
- McManus, D. 2005 *Ogam stones at University College Cork*. Cork University Press.
- Meyer, K. 1892 *Aislinge Meic Conglinne, The Vision of MacConglinne, a Middle-Irish wonder tale*. Edited [from the Lebar Brecc, p. 213, and H.3.18, p. 732] with a translation (based on W. M. Hennessy's), notes and a glossary. With an introduction by Wilhelm Wollner. London.
- Meyer, K. 1899 The song of the sword of Cerball. *Revue Celtique* 20, 7–12.
- Moltke, E. 1985 *Runes and their origin: Denmark and elsewhere*. Copenhagen. Nationalmuseets Forlag.
- Morris, J. (ed.) 1980 *Nennius: British history and the Welsh Annals*. Chichester. Phillimore.
- Nash-Williams, V.E. 1950 *The Early Christian monuments of Wales*. Cardiff. University of Wales Press.
- Newman, C. and Walsh, N. 2007 Iconographical analysis of the Marigold Stone, Carndonagh, Inishowen, Co. Donegal. In R. Moss (ed.), *Making and meaning: Proceedings of the Fifth International Conference on Insular Art held in Trinity College Dublin 25th–28th August 2005*, 167–84. Dublin. Four Courts Press.
- Ní Ghrádaigh, J. 2003 Fragments of a twelfth-century doorway at the Church of St Multose, Kinsale? *Journal of the Royal Society of Antiquaries of Ireland* 133, 68–77.
- Petrie, G. 1878 *Christian inscriptions in the Irish language*, vol. 2. Dublin. Royal Historical and Archaeological Association of Ireland.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Phillips-Universität, Marburg.
- Reade, G.H. 1856–7 The Pillarstone of Kilnasaggart. *Journal of the Kilkenny Archaeological Society* (new. ser.) 1, 315–18.
- Redknap, M. 1991 *The Christian Celts: treasures of late Celtic Wales*. Cardiff. National Museums of Wales.
- Redknap, M. and Lewis, J.M. 2007 *A corpus of early medieval inscribed stones and stone sculpture in Wales*, vol. 2. Glamorgan, Brecknockshire, Monmouthshire, Radnorshire and geographically contiguous areas of Herefordshire and Shropshire. University of Wales Press.
- Reeves, W. 1853 Kilnasaggart. *Ulster Journal of Archaeology* 1, 220–5.
- Stott, A. 1997 The Ring of Gullion, County Armagh. In F. H. A. Aalen, K. Whelan and M. Stout (eds), *Atlas of the Irish rural landscape*, 316–28. Cork University Press.
- Swift, C. 1997 *Ogam stones and the earliest Irish Christians*. Maynooth Monographs, Series Minor 2. Maynooth.
- Ua Cuinn, S. 1908–11 Kilnasaggart. *County Louth Archaeological Journal* 2, 186–90.
- Wright, R.P. and Jackson, K.H. 1968 A late inscription from Wroxeter. *Antiquaries Journal* 48 (2), 296–300.

Hidden 'Celtic' Ireland: indigenous Iron Age settlement in the south-western peninsulas

William O'Brien

Introduction

The Iron Age in Ireland has always been viewed as a problem period in archaeological terms and in relation to the thorny questions of Celticisation and the origins of the Irish language. This is especially true for the Munster region, where there is a sparse occurrence of monuments and artefacts considered characteristic of this period, in particular La Tène-derived metalwork and art forms with connections to the Continental Celts (Raftery 1994; 1998). Statistical studies have confirmed that there is indeed a genuine absence of La Tène material culture in the south (Warner 1998). It is not so long since the idea of a homogeneous La Tène Culture across the northern half of Ireland was prevalent, giving rise to suggestions that the south may have been deserted in this period or had some form of prolonged late Bronze Age (discussed in Caulfield 1981). This image of an 'empty landscape' is hardly supported by the highly visible record of Bronze Age settlement in the south-west region, or the equally rich archaeology for the ensuing early medieval period. The widespread use of ogham, for example, probably dating from the fourth century AD, suggests some underlying cultural cohesion across Cork and Kerry in the later Iron Age.

The 'problem' of the southern Iron Age was considered in the 1998 issue of *Emania*, with the contributors broadly agreeing on three points:

- This is partly a question of archaeological perception, coloured by the striking visibility of La Tène-derived artefacts and art style with links to the Continental Celts across the northern half of Ireland.
- A long-held belief in a homogeneous 'Celtic' culture has led to a general failure to appreciate the regionality of the Irish Iron Age.
- The distinctive character of the Munster Iron Age may in part relate to continuity of cultural identity and political power from the late Bronze Age.

In his contribution to the *Emania* volume, Richard Warner proposed that the failure of the La Tène groups to

intrude into Munster might be explained by the presence of a strong local aristocracy since late Bronze Age times. He went on to argue that this society succumbed, at least in part, to Romanised intruders in the later part of the Iron Age (Warner 1998). This idea that Munster had different cultural traditions and origins can be considered against increasing scepticism regarding the central place of La Tène in the Irish Iron Age. Barry Raftery was one of the first to question the significance of La Tène material in broader cultural terms, preferring to see these as the prestige objects of a small, but politically significant, élite. In the concluding pages of *Pagan Celtic Ireland*, Barry argued that it was the non-La Tène cultural element that constituted the majority population of Ireland in the period from 300 BC–AD 500 (Raftery 1994, 225).

In recent years the search for archaeological evidence of these indigenous populations has emerged as a major research objective in Iron Age studies in Ireland. With a dearth of recognisable monument types for this period, the impetus has come from the large number of subsurface sites discovered in the course of road construction and other such developments in the 'Celtic Tiger' era. These discoveries provide a new 'window' into the previously hidden world of Iron Age settlement in many parts of Ireland, but they are not without their interpretative problems. The majority of these new sites in Cork and Kerry consist of fragmentary habitation remains and iron-production features, as well as ring-ditches and other ritual sites, lacking for the most part local settlement contexts (Fig. 1). The paucity of material culture is striking, in particular the absence of pottery and any objects with direct, or even tenuous, connections to the Continental Celts.

The Beara Project

Inspired by researchers like Barry Raftery, this writer's research in the south-west region in recent years has sought to open other windows on the indigenous Iron Age. Doing so from a Bronze Age perspective has been valuable, allowing greater emphasis on the indigenous contribution to the

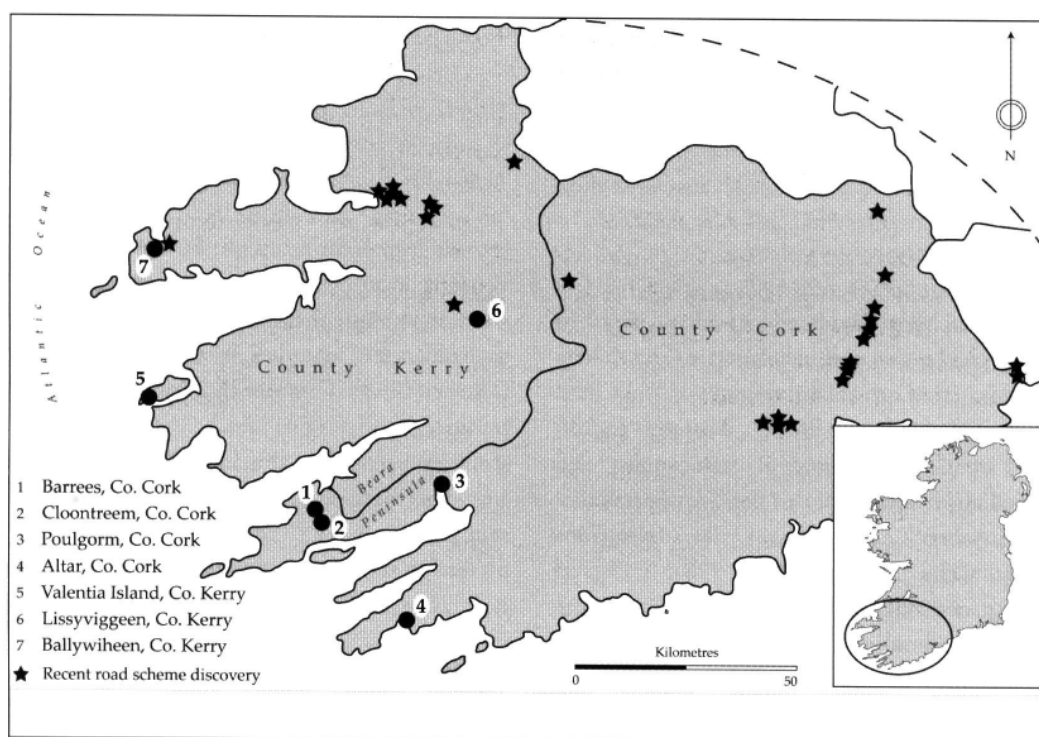


Fig. 1—Iron Age sites in south-west Ireland mentioned in text.

insular Iron Age, as opposed to the exotic La Tène element. My initial approach was to examine the religious life of Iron Age communities in the Cork/Kerry region and their perception of the past (O'Brien 2002). This was based on the premise that the older prehistoric monuments of this region were an integral part of an Iron Age mythologised landscape that these sacred places helped to create. There is some basis to argue that this region saw a transformation of religious belief, as the older Bronze Age monuments come to represent a mythical past. In the Tech Duinn myth (Loffler 1983), and in the excavation record from monuments like Altar wedge tomb (O'Brien 1999), we see how elements of an older Bronze Age belief system were incorporated into an Iron Age cosmology that attached special significance to the 'ancient stones' on the landscape.

Following on from this research, a project was established in 2001 to investigate the early human use and perception of upland environments in the Beara Peninsula of south-west Ireland (Fig. 1; O'Brien 2009). This Beara Project focused on the extraordinarily rich record of human settlement preserved beneath blanket bog in the hill valleys of this peninsula. The aim was to look at the economic

development of these uplands over time, in terms of changing settlement patterns and subsistence strategies. Particular emphasis was placed on understanding the history of agriculture in these valleys, as well as the environmental impact of different land-use practices. Finally, the symbolic dimension of this upland settlement, visibly expressed through the use of ritual monuments as an integral part of a culturally inscribed landscape, was also explored.

With funding provided by the State through the PRTL-2 research programme, the Beara Project selected three hill valleys at the western end of the peninsula for detailed investigation. These locations contained extensive ancient field wall patterns, preserved beneath blanket peat or fossilised within later, low-intensity, agricultural landscapes. The valleys also contained a range of habitation features, including hut sites, enclosures and *fulachtaí fia*, as well as ritual monuments. Those sites that can be dated from surface survey mostly fall into the Bronze Age or the early medieval period. While there were no recognisable monuments of Iron Age date, these valleys could potentially allow us to examine a local history of human settlement within a particular landscape setting marked by rich

archaeological preservation. With their varied records of Bronze Age and early medieval life, these are perfect landscape 'laboratories' to explore the nature of any intervening Iron Age settlement.

The potential here was initially demonstrated by investigations in the Cloontreem valley, located to the north of Castletownbere (Fig. 1). A survey of this valley revealed an extensive complex of ancient field patterns, preserved beneath peat growth along with diagnostic Bronze Age monuments. Surprisingly, the excavation and radiocarbon dating of one of the pre-bog walls indicated an Iron Age date for its construction (O'Brien 2009). This emphasises the limitations of surface survey for a broader understanding of the chronology of human settlement in these valleys. Programmes of research excavation are required, which are landscape-based and involve total or sample investigation and scientific dating of a range of sites of different types. This type of intensive investigation, in combination with palaeoenvironmental studies, should provide an outline chronology of settlement at that location.

The landscape chosen for this intensive analysis was the Barrees valley, located in the hill range to the east of Eyeries village, on the north-west side of the peninsula (Fig. 1). Previous surveys at this location had identified ancient field walls, enclosures and hut sites, as well as recognisable Bronze Age and early medieval monuments, but no obvious Iron Age sites. Following detailed survey and mapping of the valley, it was decided to excavate fourteen sites in 2002–3. These included two *fulachtaí fia*, one enclosure, four hut sites, one standing stone pair, one ancient copper-mine and five separate sections of pre-bog field wall (Fig. 2).

When combined with survey data, these excavations demonstrated that the earliest recorded human settlement of the valley dates from the middle and late Bronze Age, with several archaeological sites from the period 1500–1000 BC. These include the *fulachtaí fia* (sites B and C), a copper-mine (site J) and a standing stone pair (site H). While no Bronze Age houses or field walls have been identified, the discovery of these other sites points to permanent settlement in the valley during this period. This is supported by palaeoenvironmental evidence of substantial clearance of this landscape between 1400 and 450 BC, mainly as a result of pastoral farming that included an arable component (Overland and O'Connell 2009).

This investigation also identified a number of early medieval sites in the valley, including two excavated huts

(sites E and F), two souterrain locations and an ogham stone. Four of the excavated field walls appear to have been constructed in the period AD 400–500, as the pre-Christian Iron Age in Ireland drew to a close. It is not known whether settlement in this valley during the mid- to late first millennium AD was connected to an early ecclesiastical site at Caheravart, on the other side of the Barrees ridge. Pollen analysis reveals evidence of ongoing agricultural activity in the valley after AD 400, intensifying significantly from c. AD 700 to 1200 to include both pastoral farming and cereal-growing (*ibid.*).

The pollen studies undertaken by Annette Overland and Michael O'Connell (2009) provide evidence of ongoing agricultural activity in this valley during the Iron Age, but especially in the early centuries AD. This is supported by the discovery of three Iron Age sites, all of which are new types for this period in Ireland. The results of the excavation of sites D and A, as well as an Iron Age field stockade, may be summarised as follows.

Site D, Barrees

This house site is located on the lower slopes of the Barrees valley (125m OD), on dry ground adjacent to a small stream (Fig. 2). Prior to excavation the visible remains comprised a subcircular mound measuring 7.7m (east/west) by 7.3m, with a maximum height of 0.9m and a central depression filled with large stones. Excavation in 2003 exposed the lower part of a substantial house structure, rectangular in external plan with rounded corners, containing a single room with an annexe (Fig. 3). The maximum external dimensions are 6.75m (south-east/north-west) by 5.2m (north-east/south-west). The house walls measure 1.2–1.9m in width and 0.35–0.65m in exterior height, and have a soil core with internal and external stone facing. The exterior facing is comprised of horizontally laid stones that survived up to two courses on both sides of the entrance. Stone collapse around the exterior suggests that the original wall facing was more substantial, possibly 3–5 courses up to 1m high.

The house has a single entrance located on the south-eastern side, facing the stream and away from the prevailing wind. It consists of a doorway and 0.8m-long passage, which narrows inwards from 0.66m to 0.46m and is lined by two stone slabs, with a single flat threshold stone. A post-hole found outside the entrance on the northern side indicates

Fig. 2—Central part of Barrees valley, showing distribution of ancient field walls and location of pollen-sampling and archaeological excavation sites.

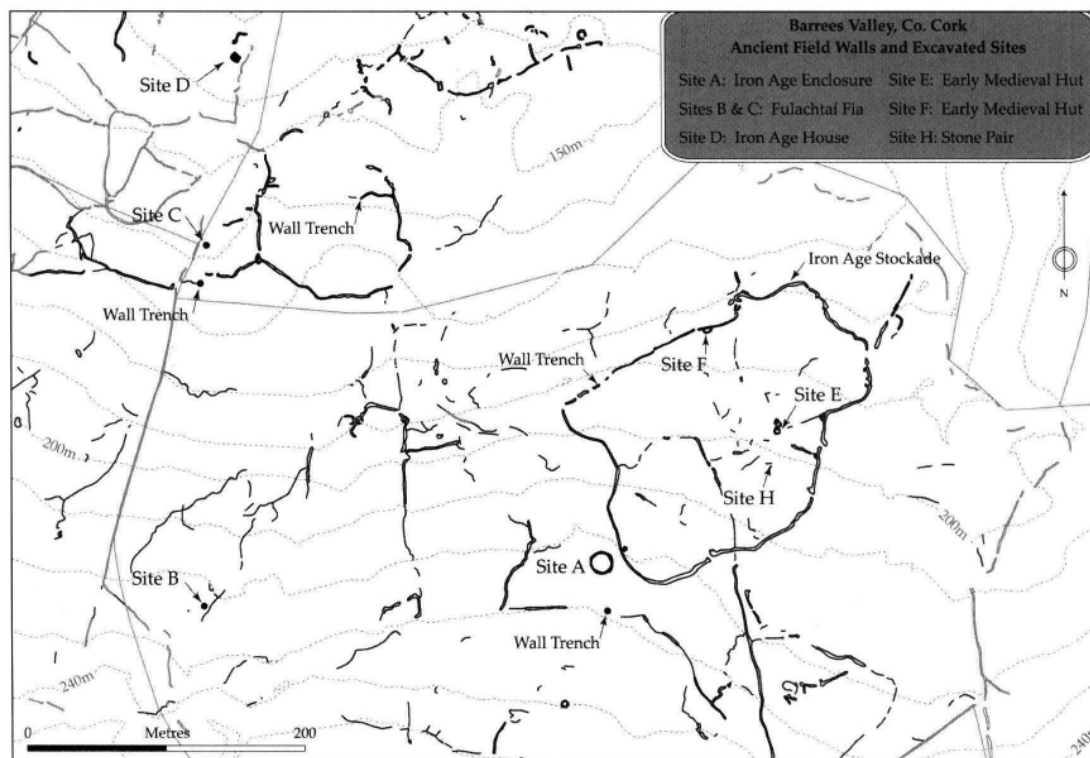
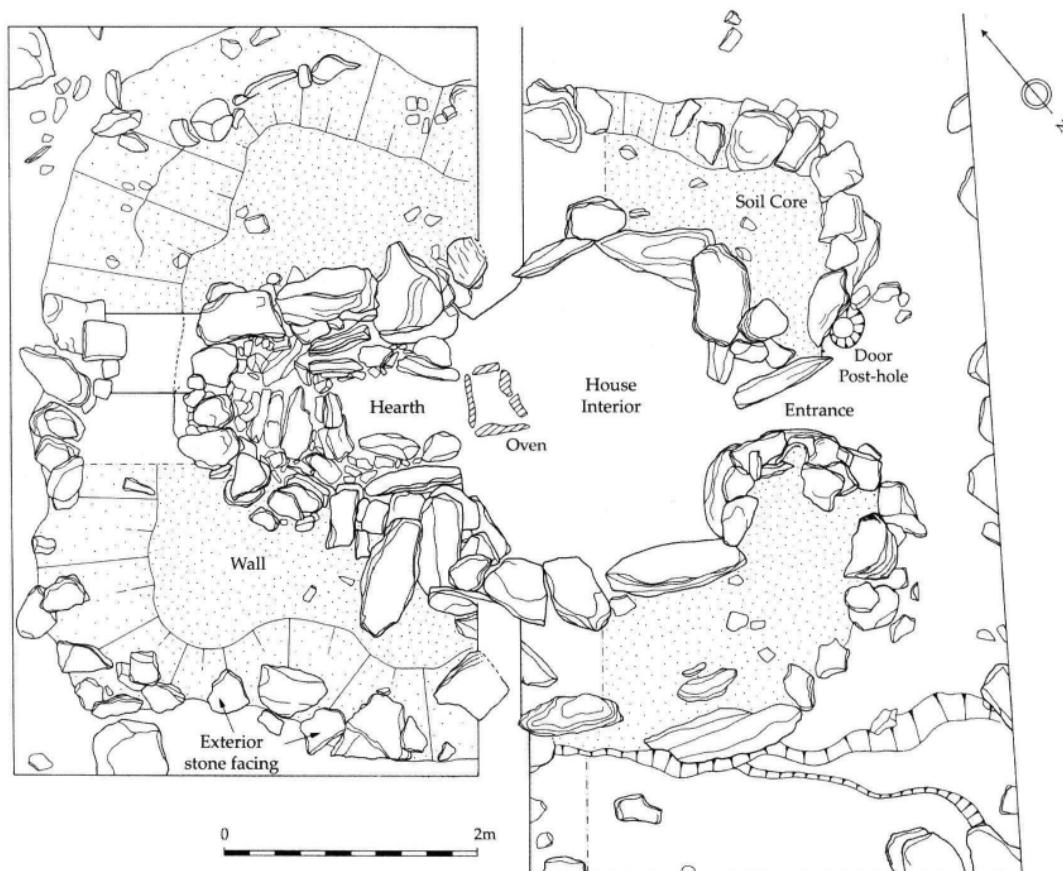


Fig. 3—Plan of site D house, Barrees.



that the door was suspended from a single wooden post. The interior room of the house has a subcircular plan, measuring 2.35m (north/south) by 2.15m, with slab-lined walls and a subsoil floor surface. The ground-plan is created by arrangements of four upright and contiguously placed slabs, extending from either side of the doorway (Fig. 4). The spaces between these large slabs are filled with smaller stones. The southern slab wall ends with a section of horizontal stone coursing, 0.55m wide by 0.77m high, on the southern side of the hearth annexe. Excavation uncovered a series of charcoal-rich floor sediments, which extended out through the doorway. No artefacts or faunal remains were recovered in the house interior.

A stone-built hearth was discovered within a horseshoe-shaped annexe, 1.75m long by 1m wide, on the north-west side of the room, directly opposite the doorway. This contained a central hearth, built from a rectangular box arrangement of six large stones opening into the house interior. The hearth was 0.88m long (north-west/south-east) by 0.44–0.54m and was floored with a single stone slab. Directly in front of the hearth a rectangular setting of four upright slabs set into a small pit formed a box-like structure. This measured 0.4m (north/south) by 0.3m by 0.25m deep and was floored by a single flat slab that bore obvious fire-reddening. This feature probably functioned as a small oven, used in conjunction with the adjacent hearth.

The only artefact from site D is a piece of struck flint (02E914:D1), probably residual from earlier settlement in this part of the valley. With no primary finds, the dating of site D depends on a single radiocarbon result of 2465 ± 20 BP (GrN-28302) for charcoal from the house hearth. Calibration of this result to 760–410 BC (2-sigma; Oxcal v.2.10) indicates a transitional Bronze Age/early Iron Age date for the house.

Site D: discussion

The excavation results from site D point to the single-phase construction of a large house, probably for residential use. The surviving structural remains were probably roofed with wooden poles lashed together at an angle, covered by thatch, hides or turves, and placed directly on top of the stone-faced earthen walls. There is no definite evidence for vertical support posts, although crossbeams may have been sufficient given the short roof span. The house interior had a free-draining earthen floor and slab walls. The thick earthen core of the house wall ensured good heat retention and wind

protection. An open hearth at the rear of the room was periodically re-lined to replace fire-cracked stones. The small box-oven in front of this hearth appears to have been used for cooking.

The absence of artefact finds at site D is surprising, given the substantial nature of this house and the evidence for prolonged use of the hearth. Recovery is unlikely to be a factor, given that the entire house structure and immediate environs were carefully excavated, with wet-sieving of all floor sediment. The dry acid soil conditions may explain the absence of bone refuse, but this should not have affected the preservation of worked stone, pottery and other inorganic materials. Careful disposal of refuse and curation of artefacts and the use of organic work tools, together with organised site abandonment, are relevant here. It is also likely that the occupants had an impoverished material culture, certainly in comparison to that of excavated Bronze Age settlements in Ireland. The possibility that this house had some specialist use, possibly as a booley hut or even a sweathouse, cannot be excluded.

There are no exact parallels for the site D structure in the corpus of Bronze Age or Iron Age houses in Ireland (Doody 2000; Raftery 1994). Several features of this house are unique, including the subrectangular exterior plan with internal subcircular room, the use of substantial earthen walling, the internal slab facing, the hearth annexe and the oven feature. This house does bear some similarity to a late Bronze Age structure excavated at Coarha More, Valentia Island, Co. Kerry, where the remains of a polygonal stone hut with a stone-walled annexe were uncovered (Hayden 1994). The walls survived to a height of over 1m, which was above the level of the lintel of a doorway on the western side. The roof of the hut was supported by the wall and a central post, while the annexe may have been corbelled. The remains of burnt timbers, charcoal, a worked timber object, flint waste flakes, and four sherds of grass-marked pottery of probable Bronze Age date were recovered from the floor of the hut. Radiocarbon analysis of burnt timber and charcoal from this structure has yielded a calibrated date range of 810–755 BC.

Site A, Barrees

The second Iron Age site excavated at Barrees is located on the upper north-facing slopes of the valley (228m OD; Fig. 2). Site A consists of a small circular enclosure, adjacent to a



Fig. 4—Interior of site D house, Barrees.

large stone-walled stockade with internal divisions (O'Brien 2009). Prior to excavation, the outline of a circular stone-walled enclosure was visible, with an entrance gap on the south-east side. The site was covered by blanket peat, with only the inner boulder face of the enclosing wall exposed. The site was excavated over fourteen weeks in 2002/3. The excavation results provide an insight into the history of this prehistoric enclosure from its initial construction to final abandonment.

The recovery of artefacts and samples for radiocarbon dating provides a chronological framework to interpret the site stratification (Table 1). These radiocarbon dates place the construction and earliest use of this enclosure within the period 50 BC–AD 340. A small number of finds are connected with subsequent use of the site from AD 340 to 620. There were also slight indications of activity pre-dating the enclosure, in the form of a pit containing charcoal dated to 1130–890 BC and a cattle tooth dated to 780–410 BC. Radiocarbon dates suggest that this enclosure was entirely abandoned by *c.* AD 600, with growth of blanket peat in the interior beginning around AD 1200, if not earlier.

The enclosure

Site A comprises a circular enclosure, defined by a stone-built wall with an entrance gap on the south-east side (Fig. 5). The internal diameter is 14.1m (north–south) by 14.8m, with a wall width of 1.2–1.5m. The enclosure wall is L-shaped in cross-section, comprising an inner face of upright slabs and an outer kerb of lower recumbent boulders, with an intervening fill of loose smaller stones. The surviving wall height is generally less than 1m along its extent and is intact, except for significant collapse on its north-east side.

The inner wall face comprises low upright slabs placed contiguously in a circular arrangement. These are mostly rough boulders of local sedimentary geology, 0.5–0.9m in height and 0.5–1.4m in width. The largest stone, 1.56m high by 1.84m wide, is located on the eastern inner side of the entrance passage. They were originally set upright, but examples on the south-west side have fallen inwards. The wall on the north-east side survives as a single line of low recumbent boulders 0.08–0.26m in height, placed directly on an exposed rib of bedrock in this corner of the site.

The slabs forming the inner wall face were placed

Table 1—Radiocarbon dates from site A, Barrees (all AMS dates, except for conventional analysis GrN-28301; calibration after OxCal v3.10).

Site history	Material	Context	Context type	Result BP	Lab number	1-sigma calib.	2-sigma calib.
Pre-enclosure							
	Charcoal	32	Fill of pit	2830 ± 40	GrA-22611	1040–920 BC	1130–890 BC
	Cattle tooth	51	Stony deposit	2485 ± 35	GrA-27496	760–530 BC	780–410 BC
Construction							
TPQ	Charcoal	48	Under wall	1835 ± 40	GrA-22609	AD 130–230	AD 70–320
TAQ	Hazelnut	45	Burnt deposit	1965 ± 40	GrA-22610	20 BC–AD 80	50 BC–AD 130
Use							
	Charcoal	10	Layer	1620 ± 40	GrA-22613	AD 390–540	AD 340–550
	Charcoal	09	Burnt deposit	1590 ± 40	GrA-22614	AD 420–540	AD 390–570
	Charcoal	35	Layer	1610 ± 40	GrA-22616	AD 400–540	AD 340–550
	Charcoal	34	Burnt deposit	1555 ± 40	GrA-22617	AD 430–550	AD 420–600
	Charcoal	24	Burnt deposit	1525 ± 40	GrA-22619	AD 440–600	AD 420–620
Abandonment							
	Peat	02	Peat layer	800 ± 30	GrN-28301	AD 1220–1260	AD 1180–1275

directly on the old ground surface, with occasional use of shallow sockets and wedge stones. The majority stayed upright owing to their contiguous arrangement and low squat form, with backing provided by the wall core. Smaller stones were used to fill gaps between these upright boulders in some places. Additional support was provided by thin deposits of stony sediment in the enclosure interior, dumped against the base of the inner wall stones. This construction debris included angular stone fragments produced by rough tooling and breaking of stones during the wall construction.

The outer wall face (C.42c) consists of a circular arrangement of contiguous boulders placed horizontally on the old ground surface. These sub-rounded boulders were 0.5–1.05m in length, 0.4–0.7m in width and 0.15–0.34m in height. The space between the inner slab face and outer boulder kerb of the enclosure wall was filled with loose irregular stones ranging from 0.05m to 0.15m in size, with some larger examples up to 0.4m.

The original entrance to the enclosure was a narrow opening on the south-east side, defined by opposing pairs of upright boulders with an entrance passage measuring 1.6m long, narrowing inwards from 2.4m to 1.4m in width. No post-holes or features suggesting a closing mechanism were discovered. A small spread of slabs inside the entrance may represent crude paving, but there was no indication that this had extended along the passageway or across the enclosure interior.

Enclosure construction

In the absence of closely datable finds, we are reliant on radiocarbon dating to provide a chronology for the building and earliest use of the enclosure (Table 1). Dating of charcoal flecks from palaeosol sediment under one of the exterior wall stones provides a *terminus post quem* of AD 70–320 (GrA-22609) for the construction event. A date range of 50 BC–AD 130 (GrA-22610) for a hazelnut fragment, recovered from a small hearth on the construction surface, may be contemporary with the building of this enclosure. A resolution of these two radiocarbon results at 2-sigma calibration suggests that this may have occurred some time in the first or second centuries AD.

The construction of this enclosure was a single event, carried out to a clear design concept, where a circular shape was accurately laid out on a carefully chosen shelf of level ground in the upper valley slopes. Care was taken in the selection of wall stones of suitable size and in their contiguous and concentric arrangement. The stones used are mostly grey sandstones and siltstones of local Devonian geology, probably sourced from surface scree on the surrounding valley slopes. These stones were used as they were found, with rough tooling in some cases to achieve desired sizes or shapes. The general absence of broken stone hammers and tooling marks on the wall slabs points to minimal tooling.

A significant feature is the low height of the enclosure

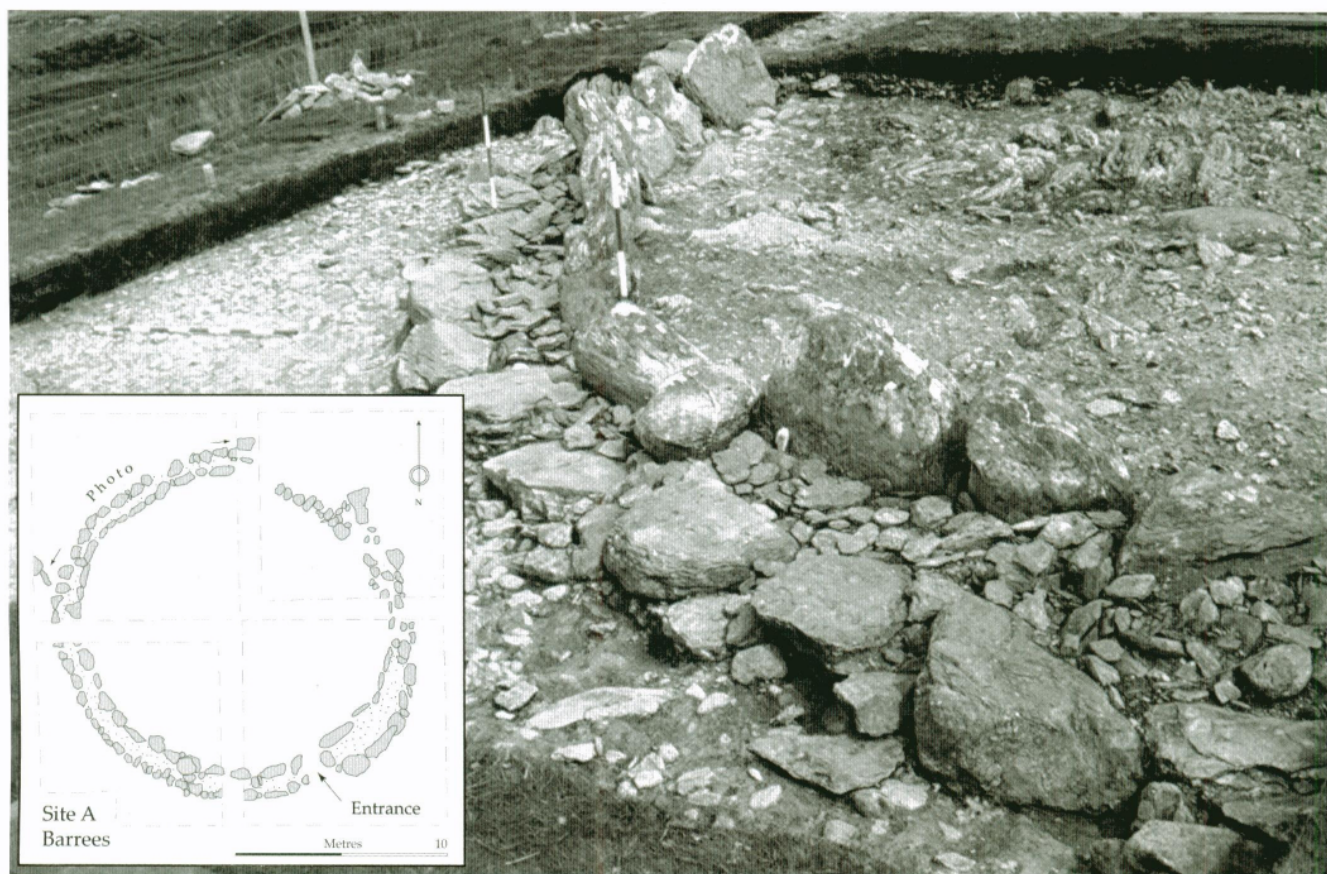


Fig. 5—Site A enclosure, Barrees valley: plan and photographic detail of north-west exterior side.

wall, which does not exceed 1m along most of the perimeter. There is no evidence that the wall was originally higher or was reduced by later robbing. As mentioned, the wall has a continuous L-shaped profile in cross-section, except on the north-east side, where surface bedrock probably necessitated a different construction method. The use of low recumbent boulders, instead of vertical slabs, on this side demonstrates a concern with maintaining a symbolic circular shape rather than with building a strong enclosure wall.

Enclosure use

Excavation of the site A enclosure uncovered a thin sequence of stony silt deposits, with occasional charcoal concentrations and surface boulders, all sealed beneath blanket peat growth. Following some fires on the construction surface (level 3), the earliest use of the enclosure is represented by a series of sediment spreads across the

interior (level 2). These are consistent with open-air silting on the stony B-horizon surface, which incorporated material residues of human activity dating from AD 340–600 (Table 1). Charcoal deposits at this level probably derived from a small number of casual fires. Some large boulders and small areas of rough stone paving were also identified. There are no artefact finds from the early use horizon. No post-holes, stake-holes or foundation trenches were found to indicate the presence of huts or other structures.

The level 2 deposits were overlain by a similar sequence of surface sediments, charcoal deposits and occasional large boulders (level 1). The sediment spreads relate to open-air silting of the interior in the period AD 420–620. The degree of overlap with radiocarbon dates for the level 2 surface suggests a broad continuum of activity at the site in the period AD 340–620. Once again, there is no evidence for structures, though charcoal evidence suggests the continued lighting of occasional fires, though no formal hearths.

Importantly, there are some artefact finds from these later use contexts, including stone objects, a small collection of glass beads and an iron point. The stone finds comprise three hammerstones, two stone discs and a hollowed stone. Five glass beads were found inside the enclosure. These include a single red glass bead (02E914:10) with central perforation, three dumb-bell beads (02E914:38, :40 and :41) with no perforations, and a single blue glass bead with central perforation (02E914:43). It is likely that individuals engaged in activities inside the enclosure wore the glass beads. The small number and dispersal of these beads indicates casual loss rather than structured deposition. Finally, a heavily corroded iron object (02E914:09) was found in the north-west interior. This object has a hollow cylindrical shape, measuring 61mm long by 8–10mm in diameter, with a rounded end and a 4–5mm-wide opening running down one side. X-ray examination did not reveal any additional features. An exact date is uncertain, but the context suggests an association with later use of the enclosure.

Site A: discussion

There are several reasons to believe that the primary intention of the builders was to create a circular enclosure of symbolic meaning rather than a defensible site or barrier stockade. This is suggested by the low height and unusual structure of the enclosing wall. The use of a low internal facing of slabs suggests that the primary intention was to create a setting for certain activities, rather than to physically enclose or prevent access. The enclosure is unlikely to have been used as a stockade for animals, especially considering the evidence of internal fires and glass bead finds. The enclosing wall would not have afforded sufficient shelter from prevailing winds to be useful for human habitation, nor were any features found to indicate the presence of any structures, such as houses, huts or domestic facilities, inside the enclosure.

With no clear evidence of human habitation, it is necessary to consider the possibility that this enclosure was used for assembly purposes. The emphasis may have been on enclosing and framing certain actions and performances connected to a ceremonial arena or ritual centre. The nature of these acts and events remains unclear. There are no human burials and no evidence that deliberate orientation, either to heavenly bodies or landscape features, was a consideration in the design or use of this enclosure.

There are no obvious parallels for the site A enclosure in the known range of Iron Age sites in Ireland. A recent archaeological survey in the Beara Peninsula did identify a large number of possible prehistoric enclosures, found in proximity to ancient field walls, hut sites and *fulachtaí fia* (Murphy 2009). The problem, however, is that the diagnostic feature of the Barrees enclosure, namely the unusual wall profile, was not visible before excavation. As a consequence, we cannot be certain whether the site is entirely unique or is representative of similar Iron Age enclosures in the region.

Iron Age stockade, Barrees

The site A enclosure is adjacent to the south-west corner of a large, stone-walled enclosure located on a broad shelf in the mid-slope section of the Barrees valley (170–212m OD; Fig. 2). This enclosure has an irregular curving shape, determined in part by local terrain and the proximity of deeper bog basins (Fig. 6). The overall dimensions are 160–204m (east–west) by 95–150m (north–south), with a wall perimeter of 710m enclosing an area of 2.8ha. It is clearly of single-period design, defined by a collapsed stone wall exposed to a width of 0.6–2.6m by 0.5m high. Excavation suggests that the original width and height of this roughly coursed wall were around 1m and 1.5m respectively.

The original entrance consists of a 2.5m-wide opening on the north-east side of the enclosure wall. There is a small hut site on the inside of this entrance, which served either as a type of gatehouse or herdsman's shelter. Outside the entrance a 3–3.5m-wide trackway leads up to the enclosure from lower in the valley. There are several lengths of pre-bog stone wall visible in the interior, which probably divided the stockade into small field units for animal management purposes. The collapsed remains of four other stone huts are visible adjoining the stockade wall on the inside. The excavation of one of these huts (site F) indicated occupation in the period AD 1040–1220 (2-sigma; OxCal v.3.10). A second hut site (site E) dates from somewhat earlier in the early medieval period, AD 580–770 (2-sigma; Oxcal v.3.10). Finally, there is a standing stone pair (site H) of middle Bronze Age date inside the enclosure on the southern side.

There are no exact parallels in the Irish Iron Age for such a large, purpose-built animal stockade. The dating of this

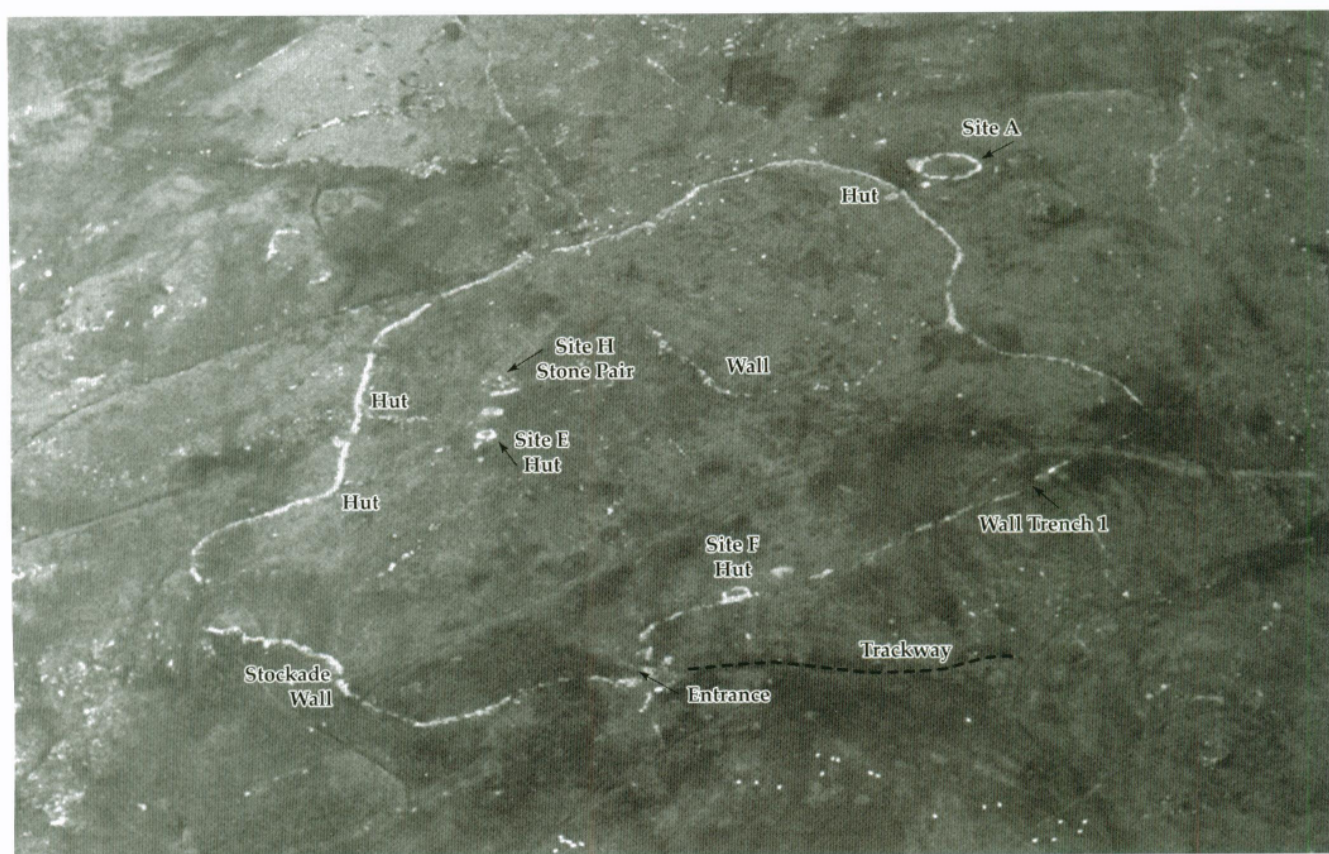


Fig. 6—Aerial view of Iron Age stockade and associated sites, Barrees valley.

enclosure is based on radiocarbon results for peat samples from an excavation trench on the north-west side (Fig. 6). These suggest that the enclosure was built in or around the first century AD, a time when pollen studies indicate substantial agricultural activity in the valley (Overland and O'Connell 2009). This included animal pastoralism but also cereal cultivation. The latter may have required careful animal management, possibly utilising the small internal fields inside the stockade.

The fact that this Iron Age enclosure physically incorporates an older ritual monument (site H) may be seen as a conscious recognition of a Bronze Age heritage (see above). The continued use of the stockade during the first millennium AD is probably connected to agricultural activity by descendant groups of this Iron Age population. This suggests an essential continuity of settlement and population in the valley, stretching from the Bronze Age through to medieval times.

Conclusions

One important result of the Beara Project has been the recognition of the potential of pre-bog upland archaeology for Iron Age studies. In the past there has been a tendency to treat these landscapes in western Ireland as somehow fossilised by peat growth in later prehistory. This perception may be traced to the influential Céide Fields research undertaken in County Mayo, where Neolithic farmscapes have been identified beneath deep blanket bog (Caulfield 1983). Not all pre-bog landscapes are like Céide, however, and there is growing evidence that many continued to be settled over time, with environmental studies confirming that blanket bog growth itself can be a late phenomenon.

The pre-bog archaeology of hill and mountain valleys in south-west Ireland has typically been characterised as Bronze Age, mainly on the occurrence of recognisable monument types from that period. From the research at Barrees it is clear that at least some of these peninsular landscapes have a

significant Iron Age and early medieval settlement component, which can only be recognised by excavation and palaeoenvironmental analysis. This has important implications for Iron Age research, allowing us to further expand the largely site- and artefact-based understanding of the period to take on board new landscape perspectives. These upland studies allow us to view the *longue durée* of human settlement and culture change in archaeologically rich environments dating from Bronze Age to medieval times. In terms of landscape archaeology, a comparison may be made with Barry Raftery's seminal research on midland trackways (Raftery 1990), which opened up new avenues of enquiry on social territories, boundaries and communication networks in the Irish Iron Age.

The results from Barrees add to a small but growing record of coastal Iron Age settlement in the Cork/Kerry region (Fig. 1). This includes the discovery of an Iron Age shell midden at Poulgorm, near Glengarriff in the Beara Peninsula (McCarthy 1987), as well as evidence for Iron Age rituals at Altar wedge tomb, Mizen Peninsula (O'Brien 1999), settlement and farming on Valentia Island, Iveragh Peninsula (Mitchell 1989), and funerary practice at Ballywiheen, Dingle Peninsula (McCarthy 2000). Outside of the peninsulas the archaeology of Iron Age settlement in south-west Ireland remains obscure. Recent discoveries made during road construction in the Cork/Kerry hinterland (McLaughlin and Conran 2008) confirm that many sites from this period have no surface exposure and only paltry material remains. Nonetheless, any contextualised understanding of these unpublished discoveries, which include hut sites and occupation spreads, iron-smelting furnaces and ring-ditch burials, should in time provide information that will complement research in the coastal zone.

Obviously, we should not expect small-scale coastal communities in Beara to be entirely representative of Iron Age settlement in Ireland. This kind of evidence, however, does allow us to move beyond a power-driven understanding of the period to explore the lives of ordinary people. Iron Age settlement in the peninsulas appears to have been localised and dispersed, probably centred on small, family-based communities living in topographically distinct agricultural and coastal resource environments. The indications of settlement continuity from Bronze Age to medieval times must be viewed against relative isolation within Ireland and only occasional overseas contacts. There is no evidence in these coastal communities of any social organisation at a

higher level, involving such power centres as hillforts. Some broader sense of identity and ethnicity is likely, but it is not clear whether these peninsular groups were entirely autonomous or under the control of larger hinterland polities.

Importantly, there is no obvious 'Celtic' component in the material culture, settlement economy or religious expression of these coastal Iron Age settlement groups. We appear to be looking at the slow transformation of small-scale indigenous societies over many centuries. This is barely detectable archaeologically, though a number of longer-term developments are apparent. For example, while significant elements of Bronze Age religious belief may have survived into the Iron Age, this period also saw new funerary practices and other rituals. The discovery of iron and glass artefacts at site A, Barrees, is evidence of material innovation, and probably technological transfer, reaching the furthest reaches of the southern peninsulas, probably through contacts with the Roman rather than the pagan Celtic worlds.

In conclusion, there is growing evidence that the distinctive character of the Iron Age in Cork and Kerry, and in many other parts of southern Ireland, derives from a Bronze Age substrate and the way that people living there in the late first millennium BC interpreted this heritage. There is no culturally significant occurrence of La Tène material in south-west Ireland because the indigenous Iron Age populations subscribed to different cultural values that emanated directly from their Bronze Age origins. They belonged to a world that owed its origins to an indigenous past, but one that was not immune to external influence. A small number of finds in Cork and Kerry, notably the Kilmurry hoard and the Cork Horns (Raftery 1984), reveal sporadic contacts with the Hallstatt and La Tène culture zones between 700 and 100 BC. Unlike other parts of Ireland, these contacts did not result in immediate or even longer-term culture change, in an indigenous world that remained remarkably resistant to change until the later centuries of the Roman period.

References

- Caulfield, S. 1981 Some Celtic problems in the Iron Age. In D. Ó Corráin (ed.), *Irish antiquity*, 205–15. Cork. Tower Books.
- Caulfield, S. 1983 The Neolithic settlement of North Connaught. In T. Reeves-Smyth and F. Hamond (eds),

- Landscape archaeology in Ireland*, 195–216. British Archaeological Reports, British Series 116. Oxford.
- Doody, M. 2000 Bronze Age houses in Ireland. In A. Desmond, G. Johnson, M. McCarthy, J. Sheehan and E. Shee Twohig (eds), *New agendas in Irish prehistory. Papers in commemoration of Liz Anderson*, 135–60. Bray. Wordwell.
- Hayden, A. 1994 Coarha More, Valentia Island, Bronze Age settlement. In I. Bennett (ed.), *Excavations 1993*, 42–3. Bray. Wordwell.
- Löffler, C.M. 1983 *The voyage to the Otherworld island in early Irish literature*. Universität Salzburg.
- McCarthy, A. 1987 Poulgorm, Glengarriff. In C. Cotter (ed.), *Excavations 1986*, 15. Dublin. Wordwell.
- McCarthy, M. 2000 Ballywiheen. In I. Bennett (ed.), *Excavations 1999*, 110. Dublin. Wordwell.
- McLaughlin, M. and Conran, S. 2008 The emerging Iron Age of Munster. *Seanda* 3, 51–3.
- Mitchell, G.F. 1989 *Man and environment in Valencia Island*. Dublin. Royal Irish Academy.
- Murphy, C. 2009 The prehistoric archaeology of the Beara Peninsula. In W. O'Brien, *Local worlds: upland farming and early settlement landscapes in south-west Ireland*. Cork. Collins Press.
- O'Brien, W. 1999 *Sacred ground. Megalithic tombs in coastal south-west Ireland*. Bronze Age Studies 4. NUI Galway.
- O'Brien, W. 2002 Megaliths in a mythologised landscape: south-west Ireland in the Iron Age. In C. Scarre (ed.), *Monuments and landscape in Atlantic Europe*, 152–76. London. Routledge.
- O'Brien, W. 2009 *Local worlds: upland farming and early settlement landscapes in south-west Ireland*. Cork. Collins Press.
- Overland, A. and O'Connell, M. 2009 Palaeoecological investigations towards reconstruction of late Holocene environmental change in Barrees, Beara Peninsula. In W. O'Brien, *Local worlds: upland farming and early settlement landscapes in south-west Ireland*. Cork. Collins Press.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Phillips-Universität, Marburg.
- Raftery, B. 1990 *Trackways through time. Archaeological investigations on Irish bog roads 1985–1989*. Rush. Headline Publishing.
- Raftery, B. 1994 *Pagan Celtic Ireland*. London. Thames and Hudson.
- Raftery, B. 1998 Observations on the Iron Age in Munster. *Emania* 17, 21–4.
- Warner, R. 1998 Is there an Iron Age in Munster? *Emania* 17, 25–30.

6. Hillforts and enclosures

Oppidum . . . silvis paludibusque munitum

Otto-Herman Frey

Bei den Forschungen zur sogenannten keltischen Oppidakultur löst eine kurze Bemerkung Caesars im 5. Buch seiner *commentarii de bello Gallico* immer wieder großes Interesse aber auch Verunsicherung aus (B.G. V 21): *'oppidum autem Britanni vocant, cum silvas impeditas vallo atque fossa munierunt, quo incursionis hostium vitandae causa convenire consuerunt'*—ein Oppidum nennen aber die Britannier einen durch Wälder geschützten Ort, den sie durch Wall und Graben befestigt haben. Dort pflegen sie zusammenzukommen, um Einfällen der Feinde auszuweichen.

Heute steht in der archäologischen Forschung hinter dem Begriff Oppidum viel mehr, als was allein das Wort sagen will, das nur einen Raum mit Umfriedungen meint (vgl. Collis 1984; Fichtel 2000). Das kann sich sowohl auf die Schranken im Zirkus als auch auf die Zentren von Städten beziehen, obwohl in der späten Republik oft ganze Stadtanlagen unterschiedlicher Form so genannt werden. Indem Caesar auf die befestigten und volkreichen Niederlassungen in Gallien regelhaft die Bezeichnung *oppidum* anwendet—nur einige Male spricht er im späteren Teil seiner *commentarii* auch von *urbes*—verstehen wir heute unter dem Namen zunächst die großen durch Mauern oder Wälle geschützten Zentralorte, die für die Wirtschaft und Verwaltung der Stämme eine außerordentliche Bedeutung hatten. Generell benutzt Caesar zur Umschreibung der Anlagen nur diesen mehrdeutigen lateinischen Begriff, dem er aber in seinen Schilderungen des gallischen Krieges einen präziseren Sinn verleiht.¹ Von solchen Mittelpunkten weicht allerdings das, was Caesar im belgischen Gebiet Britanniens vorfand, deutlich ab. Den Unterschied hebt er jedoch lediglich durch ein *autem* hervor.

Was die Kelten selbst unter den 'Städten' verstanden, ergibt sich zum Teil aus deren Namen (e.g. de Bernardo Stempel 2000; Schulze-Forster 2003). Die vielen, die auf *-dunum*, *-durum*, *-briga* enden, sind alle mit Befestigungen, bzw. auch Höhenburgen zusammenzubringen. Die Endung *-briva* deutet auf eine Brücke, also auf einen wichtigen Flussübergang hin, wo Wege zusammenlaufen, also das entwickelte gallische Verkehrsnetz Knotenpunkte hat. Andere Ortsnamen wie *Mediolanum* bezeichnen die Lage

'mitten in der Ebene', bzw. ihre Mittelpunkt Funktion (Dehn 1965;² Desbordes 1971). Wie wichtig für das Leben eines Stammes Caesar solche Zentralorte ansah, geht aus verschiedenen Äußerungen hervor. Besonders deutlich drückt er sich aus, wenn er im 7. Buch, Kapitel 13 seiner *commentarii* schreibt: ich zog nach *Avaricum*, dem Oppidum *'quod erat maximum munitissimumque in finibus Biturigum atque agri fertilissima regione . . . quod eo oppido recepto civitatem Biturigum se in potestatem redactorum confidebam'*—weil ich der Meinung war, nach seiner Einnahme würde sich der ganze Stamm unterwerfen.

Im Südosten Englands ist ebenfalls ein *-dunum*-Ort bekannt, nämlich *Camulodunum*/Colchester (Hawkes and Hell 1947). Die günstige Verkehrslage steht außer Zweifel. Ebenfalls sind von der Befestigung große Grabenwerke mit Wällen überliefert. Doch dürfte die Namengebung nicht auf caesarische Zeit zurückgehen, sondern auf eine spätere, nachdem diesen Platz der Trinovanten die *Catuvellauni* unter Tasciovanus und Cunobelin ihrem Reich einverleibt und dann als einen zentralen Ort ausgebaut hatten. Entsprechend dürften dort die Grabenanlagen, die das leichter begehbbare Gelände weitläufig abgrenzten, erst dieser jüngeren Epoche angehören. Aus caesarischer Zeit wissen wir aber von einer ähnlichen 'Stadtanlage' auf der Insel noch nichts (cf. Frere 1967).

Ob andernorts im Kerngebiet der *Catuvellauni* nördlich der Themse 'dykes' schon früher angelegt wurden, vermag ich nicht zu sagen. Ferner möchte ich von einzelnen kleineren, bereits älteren Burgen, die noch in der 'belgischen Zeit', d.h. in der Periode Iron Age C weiter benutzt wurden, hier absehen. Jedenfalls vermerkt Caesar bei der Beschreibung des Oppidums von Cassivellaunus, das er als einziges mit dieser Bezeichnung hervorhebt, keine Wallanlagen (B.G. V 21). Er sagt nur von diesem Platz: *'silvis paludibusque munitum'*. Sollte die Unterlassung einer solchen Nennung Zufall sein? Denn in der allgemeineren, darauf folgenden Aussage über britannische Oppida, die ich oben zitierte, werden ja auch Wälle und Gräben angeführt. Caesar beschreibt das genannte Oppidum lediglich als große Fluchtburg, 'in der man sich, um feindlichen Einfällen auszuweichen, zu sammeln pflegte'. Geschützt sei sie nicht

nur durch Waldesdickicht, sondern sie sei ebenfalls von Menschenhand ausgezeichnet befestigt—*'egregie natura atque opere munitum'*. Sie muss verhältnismäßig zugänglich gewesen sein. Denn sie war als Sammelpunkt nicht ganz abgelegen, wie Caesar beschreibt, von seiner Marschrouten aus relativ schnell erreichbar. Dorthin hätten sich die Menschen zurückgezogen, und Vieh sei in Mengen zusammengetrieben worden.

Wenn ein solcher geschützter Raum über längere Zeit hin Bestand hatte, musste er auch unterhalten werden. War er dafür vielleicht von einer kleineren Zahl von Leuten dauernd besetzt? Diente er auch sonst als zentraler Versammlungsort des Stammes? Hatte er für die verstreut siedelnde Bevölkerung irgendeine bedeutendere Mittelpunkt-funktion? Vor allem erhebt sich aber die Frage: reichten diese und andere Befestigungen als Schutz in den zunächst nur in lokalem Ausmaß erwarteten Kriegen überhaupt aus? Handelte es sich wirklich um einen festen Platz? Wie einfach Belagerungsmethoden auch noch bei Belgiern auf dem Festland waren, kann man etwa B.G. II 6 entnehmen, wo erzählt wird, wie die vereinigten Stämme die Stadt der Remer Bibrax ohne irgendwelche Kriegsmaschinen bestürmten.

Leider kann man zum Vergleich keine anderen Anlagen heranziehen. Caesar kennt in Britannien nur dieses eine 'Oppidum'. Obwohl er auch von einer dichten Besiedlung des Landes spricht, fehlen ihm hier die aus Gallien vertrauten bedeutenden Zentralorte. Hinweisen kann man nur auf den Anfang des Feldzugs in Kent (B.G. V 9), wo sich die Kelten auf einen Platz im Walde, ähnlich dem schon genannten, zurückzogen: 'vorzüglich durch die Natur und künstlich befestigt, den sie schon früher, wie es schien, für innere Kriege zugerüstet hatten'. Auch diese Anlage wurde also längerfristig unterhalten und stellte wohl einen ausreichenden Schutz bei lokalen Kämpfen dar. 'Die Zugänge hatte man (zusätzlich) gegen das Anrücken der Römer durch zahlreiche gefällte Bäume gesperrt.' Ich möchte diese Äußerung nicht erst auf die Tore der Befestigung selbst beziehen, sondern darauf, dass schon die Waldwege, von denen man aber kaum abweichen konnte, solcherart verbarrikadiert waren. Denn die Kelten stürzten, wenn auch selten, während des Vorrückens der Römer aus dem Dickicht hervor, um das Militär am Eindringen in die Feste zu hindern. Den gut bewaffneten römischen Truppen, auch mit Pionier-Ausstattung, waren die leichter gerüsteten keltischen Krieger aber in keiner Weise gewachsen. Erstere räumten mit Hilfe eines vorgetriebenen Damms die Sperren beiseite und nahmen diese Anlage schnell ein.

Ebenso eroberten sie das Oppidum des Cassivellaunus problemlos. Interessant dabei ist, dass in letzterem Fall die Römer von zwei Seiten in die Befestigung einbrachen. Sie mussten demnach genügend freien Raum gehabt haben, um die Postierung ihrer Truppen entsprechend auseinander zu ziehen. Es waren also nicht nur der Urwald und die Sümpfe, die eine Annäherung an diese Fluchtstätten schwierig machten, sondern es dürften auch mögliche Wälle und Gräben, Verhaue und dichte Hecken—wohl auch oft kombiniert—als unmittelbarer Schutz eine größere Rolle gespielt haben. Wie sahen aber solche künstlichen Befestigungen, die archäologisch kaum fassbar sein dürften, genauer aus? Ehe wir uns diesem Problem weiter zuwenden, sollten wir aber zunächst nach möglichen Vergleichen zu den Anlagen suchen, auch außerhalb Britanniens.

Dass Belger vom Festland schon längere Zeit vor Caesars Feldzügen in den Südosten Britanniens eingedrungen waren und teilweise die Macht übernommen hatten, war allgemein bekannt (vgl. die eingeschobenen Partien in B.G. V 12–13). Ja, es sollte ein König der Bellovaker sogar beiderseits des Kanals geherrscht haben (B.G. II 4). Weitere Belger seien während des gallischen Krieges vom Kontinent nach Britannien geflohen (z.B. B.G. II 14). Umgekehrt hätten verschiedene Stämme im Norden Galliens bei ihren Kämpfen Hilfstruppen aus Britannien erhalten (B.G. III 9; IV 20). Weitere enge Beziehungen werden bei Caesar mehrfach erwähnt. Sollten demnach nicht auch die allgemeinen Lebensbedingungen samt den Siedlungsverhältnissen verwandt gewesen sein? Wie in Britannien erwähnt im nördlichen Teil der *Belgica*, etwa bei den Morinern, Menapiern oder Nerviern Caesar (noch?) keine Oppida als Zentralorte der Stämme (cf. Fichtel 1994). Allerdings erwähnt Caesar II 28 Oppida, in die die besiegten Nervier zurückkehren durften. Was ist in diesem Fall unter 'oppidum' gemeint, nur eine Fluchtburg? Auch archäologisch lassen sich so früh keine nachweisen. Stattdessen werden Frauen und Kinder vor den Römern wieder in abgelegenen dichten Wäldern oder zwischen Sümpfen verborgen (B.G. II 16. 29; III 28; VI 5). Die Verhältnisse dürften in den Gebieten beiderseits des Kanals recht ähnlich gewesen sein. Wenn Caesar dagegen zu den Germanen rechts des Rheins aus politischen Gründen eine scharfe Grenze zieht, so macht er Vergleichbares ebenfalls bei den Belgiern. Soweit sie auf dem Kontinent wohnen, werden alle als 'Gallier' nach Gallien inkorporiert, jenseits des Kanals akzentuiert er sie aber nur als Britannier.

Auch Befestigungsweisen entsprechen sich auf dem

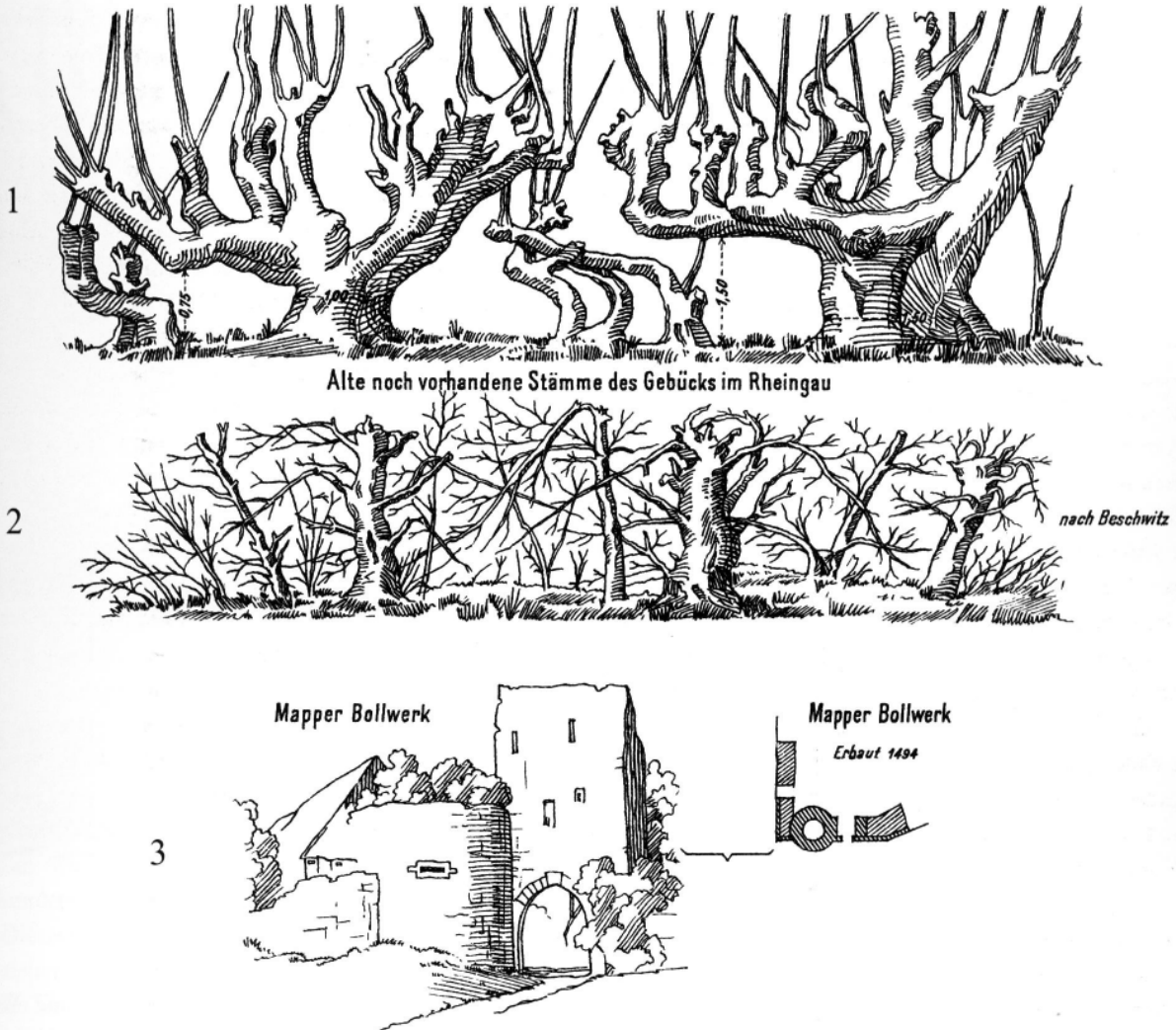


Abb. 1—Rheinbau-Gebück nach K. A. v. Cohausen 1874.

Kontinent und in Britannien. Das trifft nicht nur auf einfache Wälle und Gräben zu, sondern wohl ebenfalls auf künstliche Verhaue. Bei dem Feldzug gegen die Nervier werden die Legionen überraschend durch dichte Hecken behindert. Dazu berichtet Caesar (B.G. II 17. 22): Die Nervier verfügten über keine Reiterei und erreichten alle ihre Kriegserfolge als Fußkämpfer. Deshalb legten sie derartige Hindernisse an, um fremde Reiter bei Beutezügen zu hindern: 'Sie hätten aus jungen zurechtgehauenen und eingebogenen Bäumen und deren in Mengen in die Breite wachsenden Ästen, zwischen die sie noch Brombeeren und (anderes) Dornengestrüpp eingebracht hatten, so dichte Verhaue geschaffen, dass diese wie eine Mauer ein Bollwerk

bildeten, in das man nicht nur nicht eindringen, sondern durch das man nicht einmal hindurchsehen könnte'. Auch die Menapier, von denen Caesar (B.G. VI 5) nur sagt, dass sie durch '*perpetuis paludibus silvisque muniti*' seien, hätten nach Strabon IV 3.4 in ähnlicher Weise ihre Dörfer mit dichtem und durch Dornen verstärktem niedrigem Baumbewuchs umgeben—also wohl ebenfalls mit gekappten Bäumen, damit bei weniger Höhe solcher Einfassungen in deren unterem Teil keine Auflichtung entstehe.

Vergleichbare künstlich errichtete, dichte Hecken, die einzelne Orte oder größere Gebiete schützten, kennen wir gleichfalls im Mittelalter und sogar noch in späterer Zeit unter verschiedenen Namen aus vielen Teilen der deutschen



Abb. 2—Rheinbau-Gebück (Photo: Ament).

Länder oder in Frankreich etwa aus den Ardennen. In früherer Zeit war Schlesien durch die 'Przsesieka', einen dichten und verhaunenen Waldstreifen, zur polnischen und zur böhmischen Grenze hin abgeschlossen (Hardt 2000). Ähnlich war im Mittelalter Böhmen durch Grenzbefestigungen umgeben. Vom alten Preussen kennen wir solche 'Hackelwerke', und viele weitere Beispiele ließen sich anführen. Alle diese Hecken/Verhaue erfüllten auch für eine einfachere Kriegführung völlig ihren Zweck. Eine breite Übersicht bietet das grundlegende, vorzügliche Werk von August von Cohausen, *Die Befestigungsweisen der Vorzeit und des Mittelalters* von 1898. Dieser bezieht sich ebenfalls auf den Verhau der Nervier und liefert eine lebendige Schilderung davon durch den Vergleich mit dem 'Gebück', das den Rheingau umschloss, von dem sogar heute noch Spuren im Gelände auszumachen sind. Er bemerkt dazu: Für solche Anlagen 'können wir kein besseres Beispiel vorführen!' (cf. von Cohausen 1874).

Der Rheingau ist ein schmaler Streifen Land zwischen

Wiesbaden-Biebrich und Bingen. Im Süden und Westen umschließt ihn der Fluss, im Norden sind es die Höhen des westlichen Taunus (Rheingaugebirge: Schaefer 1973; Laub 1971³). Um ihn genauer zu umschreiben, müsste man der alten Umgrenzung von der Mündung des Walluf-Baches im Osten, dann hinauf nach Schlangenbad folgen und dann weiter nach Westen zur Wisper, um nördlich von Lorchhausen wieder den Rhein zu erreichen. Das Altsiedlungsland nahe dem Fluss gelangte vom späteren 10. Jahrhundert an schrittweise unter die Herrschaft des Erzbischofs von Mainz. Vergrößert wurde das Territorium durch Rodungen an den Berghängen, was die lokalen Ministerialen und Grundbesitzer, auch Adlige und Klosterherren und weitere Leute reizte, da das so gewonnene Land einen zehntfreien Besitz bildete. 1262 wurden die Rodungen verboten; doch hatte sich bis dahin die in erster Linie für den Weinbau genutzte Fläche fast verdoppelt. So wurden für viele Menschen sozialer Aufstieg, Rechte und Freiheiten gewonnen. Früh im 14. Jahrhundert wurden die

gewachsenen Freiheiten auch in einer Rechtssatzung fixiert, die den Bewohnern des ganzen Gebietes Bürgerrechte entsprechend städtischen Freiheiten einräumte.

Um dieses 'Bauernland mit Bürgerrechten' zu schützen, reichte im Süden und Westen der Rhein aus. Im Norden auf den Höhen wurde aber anstelle einer Stadtmauer eine lebendige Befestigung, ein 'Gebück' geschaffen (Abb. 1.2). Genau wie bei den Nerviern vor Caesars Zeit wurden auch hier die Bäume gekappt. Man bog die seitlich herauswachsenden Zweige nieder ('bückte sie') und flocht sie ineinander. Pflanzen mit Dornen kamen hinzu. Ungeheuerlich ist, dass dieses lebende Gestrüpp an manchen Stellen eine Stärke bis zu 50 Metern erreichen konnte, sogar noch mehr. Für Menschen und vor allem für Pferde/Reiter war es undurchdringlich. Dieses Gebück als eine unpassierbare 'Mauer' musste natürlich laufend gepflegt werden, damit keine Lücken entstanden, sich vor allem durch Hochwachsen von Ästen keine Löcher im unteren Teil ergäben. Man musste also altes Holz ausschneiden und junge Sträucher nachziehen, was ständig kontrolliert wurde. Die nächsten Ortschaften mit den entsprechenden Waldmarken sollten es unterhalten und wurden bei Vernachlässigung ihrer Pflichten streng bestraft. Natürlich war das Gebück nicht überall gleich. Auch gab es verschiedene Zu- und Ausgänge und an wichtigen Stellen Torburgen, die z.T. im 15. Jahrhundert in Mauerwerk ersetzt wurden (z.B. Abb. 1.3).

Dieses Gebück stellte für die Kriegführung im Mittelalter ein sehr wirkungsvolles Bollwerk dar. Ausgehend von der Untersuchung von v. Cohausen verweise ich nur auf den 1461 versuchten und auf den ebenso 1462 misslungenen Angriff einmal des Erzbischofs Diether von Mainz und dann Friedrichs des Siegreichen von der Pfalz. Die Unternehmung der Schweden von 1631 im dreißigjährigen Krieg gelang nur nach dreitägigem Ansturm endlich durch Umgehung von zu fahrlässig bewachten, ferner gelegenen Bollwerken, wodurch auch der Rheingau in den Strudel der Kriegsnot hineingezogen wurde.

Seit der Mitte des 18. Jahrhunderts wurde das Rheingauer Gebück kaum mehr gepflegt und bald ganz aufgelassen. Heute sind nur noch vereinzelt gekappte Bäume der einstigen Sperre erhalten, deren Zweige aber in der Folge frei nach oben schossen (Abb. 1.1). Die Photographie (Abb. 2), die erstmals 1972 veröffentlicht wurde, lässt noch mehrere Bäume des Gebücks erkennen. Die wenig rezentere Aufnahme (Abb. 3) zeigt, dass immerhin noch einzelne Bäume auffindbar sind.

Wie v. Cohausen deutlich macht, bildeten solche und

ähnliche lebende Verhaue überall in waldreichen Gebieten für kleinere und größere Umfassungen effektive Bollwerke, sei es, dass sie direkt vom Waldboden aufstiegen, oder seien sie als zusätzlicher Schutz auf Erdwälle gepflanzt. Für die Kriegführung nicht nur in frühen Zeiten kam ihnen an vielen Orten eine bedeutende Rolle zu, auch wenn sie einstens—wie ebenso andere Schutzanlagen—als Barrieren den erstaunlich effektiven römischen Truppen nur vorübergehend zu widerstehen vermochten.

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Notes

- (1) Besonders lesenswert ist noch immer die zusammenfassende Schilderung der gallischen Oppida nach Caesar durch W. Dehn (1951), die auf seine gründliche Lektüre der *commentarii* während seiner Kriegsgefangenschaft in Frankreich zurückgeht.
- (2) Doch wird heute die Herleitung des Namens von Mailand als unsicher angesehen.
- (3) Leider erhielt ich zu spät für eine Berücksichtigung den Hinweis auf die folgende ausführliche Untersuchung, die unser Bild von der Befestigung des Rheingaus auch in einzelnen Punkten modifiziert: Grubert 2005.

Bibliography

- Collis, J. 1984 *Oppida. Earliest towns north of the Alps*. Department of Prehistory and Archaeology, University of Sheffield.
- de Bernardo Stempel, P. 2000 Keltische Ortsnamen. In *Hoop's Reallexikon der Germanischen Altertumskunde* (2nd edn), vol. 16, 407–13. Berlin/New York. W. de Gruyter.
- Dehn, W. 1951 Die gallischen 'Oppida' bei Caesar.

- Saalburg-Jahrbuch* 10, 36–49.
- Dehn, W. 1965 Mediolanum. Lagetypen spätkeltischer Oppida. In R. von Uslar and K.J. Narr (eds), *Studien aus Alteuropa II. Kurt Tackenberg zum 65. Geburtstag*, 117–28. Beihefte der Bonner Jahrbücher 10, II. Köln.
- Desbordes, J. M. 1971 Un problème de géographie historique: le Mediolanum chez les Celtes. *Revue Archéologique du Centre de la France* 10, 187–201.
- Fichtel, F. 1994 *Les Gaulois du nord de la Gaule (150–20 av. J.-C.)*. Paris. Editions Errance.
- Fichtel, S. 2000 *La ville celtique. Les oppida de 150 av. J.-C. à 15 ap. J.-C.* Paris. Editions Errance.
- Frere, S. 1967 *Britannia, a history of Roman Britain*. London. Routledge and Kegan Paul.
- Grubert, C. 2005 *Rheingau, Taunus und Gebück. Zur Geschichte von Landschaft und Landwehr in Zeit und Raum*. Bettendorf. Kult-ur-Institut für interdisziplinäre Kulturforschungen.
- Hardt, M. 2000 Linien und Säume, Zonen und Räume an der Ostgrenze des Reiches im frühen und hohen Mittelalter. In W. Pohl and H. Reimitz (eds), *Grenze und Differenz im frühen Mittelalter*, 11–261. Forschungen zur Geschichte des Mittelalters 1, Österreichische Akademie der Wissenschaften, Phil.-Hist. Klasse, Denkschriften, 287. Wien.
- Hawkes, C.F.C. and Hell, M.R. 1947 *Camulodunum. First report on the excavations at Colchester 1930–1939*. Reports of the Research Committee of the Society of Antiquaries of London 14. Oxford.
- Laub, J.K. 1968–71 *Das Rheingauer Gebück*. Schriftenreihe für die Rheingauer Heimatforschung 4. Rüdesheim/Rhein. Rheingauische Heimatblätter.
- Schaefer, A. 1973 *Die alte Rheingauer Freiheit*. Schriften zur Weingeschichte 30. Wiesbaden.
- Schulze-Forster, J. 2003 Oppidum. In *Hoop's Reallexikon der Germanischen Altertumskunde* (2nd edn), vol. 22, 131–4. Berlin/New York. W. de Gruyter.
- von Cohausen, A. 1874 *Das Rheingauer Gebück*. *Annalen des Vereins für Nassauische Altertumskunde und Geschichtsforschung* 13, 149–78.

How many hillforts are there in Scotland?

Stratford Halliday and Ian Ralston

'Britain, with more than three thousand structures of notionally hillfort character, presents acute problems of definition' (Raftery 2004, 162).

Introduction

Barry Raftery's observation has a particular resonance in Scotland, where a significant proportion of these notional hillforts can be found. Classified as *Forts*, a term that has been long preferred north of the Border, they are defined in the RCAHMS on-line thesaurus as 'an enclosure, often located on a hilltop, bounded by one or more banks, ditches, ramparts or walls', terminology that is much closer to that in other west European languages, where the 'hill' element is not wrapped into descriptors such as *castro*, *enceinte*, *oppidum* or *Ringwall*. The problems of definition, however, are not simply about the characteristics of these monuments and their classification in monument records. As we shall see, they are embedded in the history of the study of hillforts in Scotland, played out in both national and local arenas, the latter illustrated here by case-studies in Berwickshire and Kintyre. We cannot offer a solution so much as air the issues and sketch some new approaches.

In contrast to Ireland, settlements have long been central to Scottish Iron Age studies. During the 'long Iron Age', a period spanning from the late Bronze Age through to the arrival of the Norse, many types have been described, some essentially local and others components of more widespread, even sub-continental, patterns. Forts, however, though amongst the most common and conspicuous categories, have not played such a central role in research programmes as that occupied by such idiosyncratically Scottish monument types as complex Atlantic roundhouses or broch towers. These have seemed more approachable in scale and more rewarding to dig.

Forts, as the RCAHMS definition implies, form a comparatively fuzzy data set, and this fuzziness has itself several dimensions—most importantly the existence of a myriad of enclosed sites classified as *Settlement*, *Earthwork* and *Enclosure*, terms which all suggest their exclusion from

the *Fort* category. The distinctions are of course forcibly framed around subjective considerations of the defensive potential of their enclosing walls and ramparts, and therein lies part of the problem.

The history of the problem

Antiquarian interest in ancient enclosures can certainly be traced back to the eighteenth century, and includes a small selection of sites recorded for General William Roy (1793) and the initial interest in vitrified forts (e.g. Williams 1777). The first effort to collect data at a national level is marked by the *Statistical Account of Scotland* (Sinclair 1791–9), under way under the aegis of the improving landowner Sir John Sinclair in the last decade of the eighteenth century, but its texts tend to be confused and obscure, characteristics that hardly improved with the publication from 1845 of its successor, the *New Statistical Account*. In so far as it is possible to gain any national overview from these sources, this is provided by Daniel Wilson, whose chapter on 'Strongholds' in *Prehistoric annals of Scotland* manages to combine a general commentary on his meagre sources with more specific observations of forts like the Caterthuns in Angus and Tap o' Noth in Aberdeenshire (1851, 408–30; 1863, 85–115). The military equation of enclosure with fortification and defence was already well established from the eighteenth century onwards, and as often as not these works were attributed to invading people—Danes, Saxons and Romans.

As the nineteenth century progressed, general interest in Scotland's field antiquities began to evolve, and the preparation of the first edition of the OS 6in. and 25in. maps from the 1850s–70s created the first national record of the nation's monuments, each depicted to scale in its correct topographical position. Under the direction of Sir Henry James, the Ordnance Survey was also taking an active interest in the annotation of ancient sites appearing on its maps (Seymour 1980, 173–5). Despite this huge leap forwards, then as now Scottish monument types such as brochs tended to attract most of the archaeological attention.

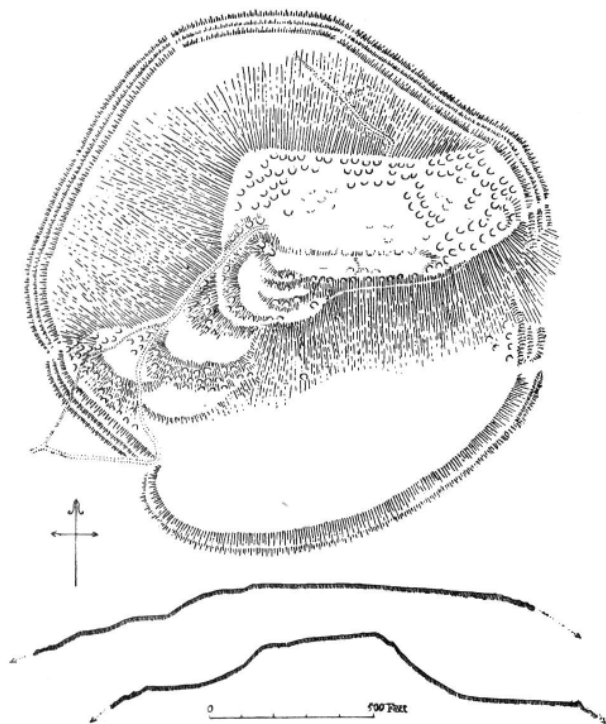


Fig. 58.—Eildon Hill Fort Roxburghshire.



Fig. 59.—Lines of Eildon Fort, A from S.E., B from N.E., C from N.W.

Fig. 1—The major fort on Eildon Hill North (Scottish Borders) as illustrated by David Christison. His plans were generally modified from Ordnance Survey maps, as he explains in his introduction (1898, vii–viii).

Wilson had included them amongst his strongholds, but Joseph Anderson's *Scotland in pagan times: the Iron Age* (1883) devoted one chapter to broch architecture and another to their contents; hillforts were summarily dealt with alongside souterrains and lake-dwellings in the final chapter.

A few pioneers investigated hillforts, including excavations by such as James MacDonald at Tap o' Noth (1891) and the remarkable Christian Maclagan at Mither Tap o' Bennachie (1875), but it was only in the final decades of the nineteenth century that the first systematic review was undertaken. Contained in David Christison's *Early fortifications in Scotland* (1898), this belongs very firmly to the pre-First World War tradition of typological categorisation, comparable, for example, with Hadrian Allcroft's *Earthworks of England* (1908) and the classification of French sites under the auspices of the Société Préhistorique Française from 1903 (Buchsenschutz 1984,

11). Christison's survey was underpinned by twelve summers of fieldwork and drew extensively upon the Ordnance Survey depictions. His objective was to present a 'scientific archaeology' (1898, ix–x), and his general discussion of the problems of definition still has much to commend it as a model of good sense (*ibid.*, 111–15). In all, he collected information covering 905 sites (Fig. 1), and at the back of the volume is the first national distribution map of forts on mainland Scotland. Christison's classification was based essentially on size, as defined by their longest overall dimension, with 'very small' being those under 100ft (c. 30m), 'small' those up to 300ft, 'moderate' 300–600ft, and all examples greater than that considered as large (Table 1).

This systematic approach to classifying and cataloguing monuments by the likes of Christison and his contemporaries, such as Frederick Coles, was taken up in 1908 with the establishment of the Royal Commission on

Table 1—Christison's size classification applied regionally (1898, 385).

	Very small.	Small.	Moderate.	Large.	Total.
Mainland of Argyle . . .	81	72	10	1	164
Rest of Highland mainland .	7	22	11	2	42
North-east counties, Fife, and Lowland Perth . .	1	21	27	15	64
Ayr and Renfrew . . .	3	17	10	...	30
Galloway	13	80	11	...	104
Dumfries	2	128	62	1	193
Peebles and Upper Ward of Lanark	...	28	52	7	87
Lothian and Berwick coast .	...	20	30	7	57
Basin of Tweed below Peebles	1	57	89	17	164
	108	445	302	50	905

the Ancient and Historical Monuments of Scotland, initially staffed by Alexander Curle. County Inventories, initiated in 1908 in Berwickshire (RCAHMS 1909; 1915; see below), underpin elements of many Scottish distributions, and certainly played a part in the compilation of the next set of national distribution maps showing forts. These were produced by Gordon Childe, upon whose knee the young Barry Raftery once sat. Childe's syntheses of Scottish prehistory (1935; 1946) allowed him to set his fieldwork on hillforts, as opposed to the brochs and duns that made up his 'castle complex', into a much wider context, and he carried out a series of excavations, including those at Earn's Heugh on the Berwickshire coast, Castle Law in Midlothian, Finavon in Angus, and Rahoy in Argyll (Ralston 2009). His key map, 'Iron Age forts and refuges' (1935, map IV), extends Christison's distributions into the Western Isles and Orkney. Some of the sources on which he drew are readily identifiable—the publications of Erskine Beveridge, for example (1903; 1911). In a discussion entitled 'Castles', which included all the smaller drystone fortifications up and down the Atlantic coast, brochs are presented as the pinnacle of architectural achievement (Childe 1935, 197–206), but on the map he split this group, distinguishing brochs separately from an amalgamated category of 'Fort, or Castle' covering the greater number of forts throughout Scotland. Childe also separated out some individual series of forts, including vitrified forts, already by then a well-known series,

and three 'Gallic forts' where excavation had revealed timber-lacing and thus apparent similarities to Caesar's description of a *muris gallicus* in central France (listed in Childe 1946, appendix XI, 134–6). Of particular interest are his 'Hill-top towns', the series of bigger sites exemplified by Traprain Law in East Lothian, which he equated with southern English hillforts (1935, 206–8). Largely confined to Scotland south of the Forth–Clyde isthmus, he included in this category Turin Hill and the White Caterthun in Angus, and the Barmekin of Echt in Aberdeenshire, as well as Drumadoon on Arran and probably Borrachail Mor, near Port Ellen on Islay. With Childe's distinctly individual classification system, the density of forts already known on parts of the mainland is apparently matched by those shown on Tiree and North Uist (Childe 1935, map IV; Table 2). Few of these would now be classed as forts, and by 1940 Childe (1940) had begun to use the Gaelic word *dun* in a more limited sense than the generic and geographical usage that until then had seen it applied to any fortification, large or small, up and down the west coast (Childe 1940, 245). Here lie the seeds of the evolution of the term *dun* in the 1950s, led by Richard Feachem of the Royal Commission, to describe the smaller drystone forts that not only fell outside the broch category but in the west also generated a southern counterpoint to the northerly distribution of brochs (Maxwell 1969).

The baseline for modern approaches to Scotland's

Table 2—Numbers of fort sites calculated from Childe's map IV (1935) for Scotland north of the Central Belt only.

NB: fort or castle includes duns but not galleried duns, brochs or vitrified forts.

NB: Shetland is not mapped at all.

	Fort or castle	Vitrified	Gallic	Hilltop town
Orkney	0	0	0	0
Lewis/Harris	c. 36	0	0	0
Lewis/Harris little islands	c. 15	0	0	0
N Uist	c. 60	0	0	0
Benbecula	11	0	0	0
S Uist	24	0	0	0
Barra etc	9	0	0	0
Coll & Tiree	c. 42	0	0	0
Islay	23	1	0	1
Jura	1	0	0	0
Mull	14	0	0	0
Skye	48	0	0	0
Rum & neighbours	3	0	0	0
Mainland N of Dornoch Firth	14	0	0	0
N Mainland D Firth to Morvern	18	9	0	0
Great Glen— Aberdeenshire Dee	30	1	1	1
Dee—Earn—Great Glen	c. 50	6	0	2
Argyll & mainland W of Clyde	c. 132	6	0	0
Bute & Cumbræ	12	3	0	0
Arran	11	1	0	1
Earn—Antonine Wall— Loch Long	38	1	2	0

hillforts lies in the 1940s and '50s, with the ground-breaking work of the Royal Commission in Roxburghshire (RCAHMS 1956) and the excavations of Childe's successor as Abercromby Professor at Edinburgh, Stuart Piggott, and his wife Peggy. In terms of survey, Kenneth Steer provided the point of departure with his recognition of the traces of palisade trenches on aerial photographs; for excavation, it was Peggy Piggott's interventions in Roxburgh forts, famously including Hownam Rings (Piggott 1948). It has become fashionable to point to the shortcomings of the model derived from those excavations, essentially the local

application of the defensive sequence of fence (or palisade), wall and dump—hardly a classification device unique to Scotland and plainly not universally applicable, as Peter Hill's Broxmouth excavations were to demonstrate (Armit 1999). More importantly, the work in the Borders, culminating in Peeblesshire (RCAHMS 1967) and Lanarkshire (RCAHMS 1978), revealed the huge range of later Iron Age settlements that exist in the Southern Uplands. 'Fort', as it is expressed in Roxburghshire and Peeblesshire, tended to be reserved for enclosures with substantial or high ramparts occupying positions of natural strength, though Richard Feachem recognised both the difficulty of applying this classification and the unsatisfactory military connotation (1963, 100; 1965, 138). In his view, the majority of forts were at best defended villages, and he believed that the distinction between fort and settlement was slight.

Through the Marginal Lands Survey, Feachem probably saw more forts and duns than anyone before or since, forming the basis for his key paper on Scottish hillforts (1966) given to the Scottish Iron Age conference of 1962. That contribution marks the high tide of the post-War culture-historical approach, with the country's hillforts fitted—in Feachem's paper, and in Piggott's introductory essay (Piggott 1966)—into a national framework built round the enduring provinces of Solway-Clyde, Tyne-Forth, and so on. Feachem's piece also attempted to fit his data to the now less-familiar regions, the second-tier geographical areas of Piggott's northward extension of Hawkes's scheme for the southern British Iron Age. The volume was accompanied by an elegant new distribution map of Scottish forts drawn by Ian Scott (end piece), which was commissioned and overseen by the volume editor, Leo River (Ian Scott, pers. comm.). Feachem's essay remains the most sustained and confident effort to detect local patterns and regionality in the forts and enclosed settlements of northern Britain. He claimed some 1,500 forts and major settlements north of Darlington, though the map, stopping southward at Hadrian's Wall, depicts fewer than 900 forts, and nearer 800 in Scotland (Table 3).

Since that time, this sort of approach has gone out of fashion, and A. H. A. Hogg's 1979 *Index* provides the last attempt in the pre-computerised era at a complete listing, in 1996 converted into a map by Gordon Thomas (Ralston 1996, fig. 1). As will emerge in the two case-studies, the contents of the *Index* are uneven and vary with the history of fieldwork of separate regions.

Fig. 2—A new distribution map of forts and promontory forts in Scotland based on data in the CANMORE database in November 2008 as assessed by Stratford Halliday. Drawn by Shelly Werner.



With the computerisation of monument records, national distributions are now available on the desktop at the press of a button. At the time of writing, CANMORE, the national on-line database, contains 1,476 records of forts, though with ruthless pruning of possible, and indeed impossible, records this reduces to 1,305, as compared with just over 800 in Scotland mapped by Ian Scott and the slightly lower number listed by Hogg (Fig. 2 and Table 3). This is a substantial increase, to some extent reflecting the work of the Ordnance Survey Archaeology Division prior to 1983, but mainly the impact of aerial photography since 1975. The explosion of new data required an addendum of twenty additional enclosures in the prehistoric and Roman

County Inventory for Lanarkshire (RCAHMS 1978), and has brought about the most significant advance in our understanding of the changing landscapes and distributions of Iron Age enclosure in Scotland. The data are still underexploited, but in Berwickshire, for example, the number of earthwork enclosures of all types has tripled. The definition of a fort, however, has become even fuzzier. Multivallate enclosures on hilltops find their parallels in the earthwork record easily enough, but what of the series of multi-ditched earthworks in less defensible locations, matched by a wide spectrum of other enclosures, some broad-ditched, others narrow, backing onto cliffs or set on shallow slopes and terraces? The predominant impression,

Table 3—Leo Rivet's data on forts, mapped by Ian Scott, by Ordnance Survey grid square, compared with information on forts in Scotland extracted from RCAHMS CANMORE 2008. Note that data for grid squares NT and NY are not directly comparable, since the English border is not included on the Scott map, where distributions are carried down to Hadrian's Wall.

Grid square	Ian Scott 1966		CANMORE 2008	
	Forts	Including vitrified	Forts	Change
HP	0	0	4	4
HU	4	0	16	12
HY	2	0	11	9
HZ	1	0	1	0
NB	4	0	13	9
NC	9	2	11	2
ND	3	0	17	14
NF	3	0	3	0
NG	14	2	36	22
NH	38	12	51	13
NJ	25	3	35	10
NK	0	0	2	2
NL	2	0	7	5
NM	25	6	83	58
NN	22	3	54	32
NO	44	7	96	52
NR	32	4	104	72
NS	62	11	111	49
NT	375	3	432	57
NW	6	0	10	4
NX	108	7	151	43
NY	64	0	57	-7
	843		1305	462

however, is that later prehistoric settlement enclosures still tend towards the smallness that has been a prevailing characteristic of the record since Christison assembled his data. Few new discoveries attain a size in excess of the 2ha/5 acre threshold, the relatively rare instances including the Hirsell in Berwickshire and Auchray in Angus. These factors of size—reflecting community rather than individual family units—and the scale and defensibility of lines of enclosure remain at the core of the Scottish problem, both at the national scale and in the two contrasting case-studies—Berwickshire and Kintyre—presented below.

Berwickshire

The first fleeting references to earthworks in the Berwickshire entries in the *Statistical* and *New Statistical Accounts* employ a military vocabulary of *encampments*, *camps* and *entrenchments*, but it is not possible to extract any real sense of the numbers of ancient earthworks that then survived. The agricultural revolution was already well advanced there and many earthworks, locally known as *rings* (*Stat. Acct.*, i (1791), 77), were evidently disappearing. Nevertheless, the first edition of the OS 6in. map for Berwickshire, surveyed 1855–8 and published 1857–62, shows no fewer than 64 earthworks and sites of earthworks, and, with the exceptions of the artillery fort at Eyemouth and a ringwork annotated *Intrinchments*, they are all styled *Camp*; it is only with the revision of the County Series at the end of the nineteenth century that this term was replaced with *Fort*, possibly responding to the ripples from Christison's work.

Christison had embarked on his study of forts and camps in Peeblesshire in 1885–6 (1887), though he does not appear to have surveyed those in Berwickshire until the early 1890s, describing about 55 in all (1895) (Fig. 3). Of the ten Berwickshire forts that he subsequently used in his illustrations, all bar one were multivallate, but he had certainly recognised that in the Border counties at least there was a series of lesser enclosures that he considered early villages (1898, 269–71).

Such a nicety was lost upon the Ordnance Survey surveyors, who depicted another twenty *Forts* on the second edition of the 6in. map, bringing the total in Berwickshire to 82. These form the core of the County Inventory prepared in 1908 by Curle (RCAHMS 1909). This has 64 entries under the heading of *Defensive Constructions*, including a motte and a ringwork, and the sites of another eighteen are simply listed. The introduction makes clear that these are essentially those earthworks appearing on the maps as *Forts* (RCAHMS 1909, x–xii), but with reference to the group around St Abb's Head and Coldingham Loch, Curle distinguished between small enclosures with a single 'unimportant' rampart and larger multivallate works.

The rapid evolution of the County Inventories led the Commissioners to reissue Berwickshire, its text radically revised and illustrated by plans drawn up by James Hewat Craw (RCAHMS 1915). Craw, whose home was in the county at West Foulden and whose father had assisted David Christison, combined an intimate knowledge of



Fig. 3—Aerial view of the fort at Habchester, Berwickshire, in 2001 (RCAHMS SC 933205). This fort was already partially ploughed down when recorded by David Christison at the end of the Victorian era and plainly shows the impact of subsequent activities on the survival and detection of evidence for enclosure.

Berwickshire with a flourishing interest in its history and archaeology. The earthworks that had previously been only listed as sites were included amongst the other *Defensive Constructions*, furnished with full descriptions and in many cases plans, along with fifteen completely new entries for a total of 96. In this version, however, a classification was inserted at the beginning of each entry. All but five were forts—*fort*, *hill fort*, *cliff fort* or *promontory fort*—and another two were designated as sites to give the total of 93 forts in the county subsequently cited by Craw (1921, 231), though this still included the ringwork, what was almost certainly a moated site and a curious motte-like mound. The introduction introduces a slightly different classification—(1) *Cliff or escarpment forts*; (2) *Promontory forts*; (3) *Contour forts*; (4) *Small enclosures with possibly a domestic character*; (5) *Brochs*; (6) *Motes*; and (7) *Large enclosures partially excavated*

in the interior—which is applied slightly idiosyncratically in relation to both the classifications prefacing the individual entries and the characteristics of some of the earthworks described.

Craw continued his fieldwork in Berwickshire and by 1921 had found another thirteen. He also listed another 22 locations where earthworks had previously been reported and refined the classification. The basis of the latter system was much the same—(1) *Cliff, escarpment or crescentic forts*; (2) *Promontory forts*; and (3) *Contour forts*—but he broke his third category into three groups, namely *Summit forts*, *Hillside forts* and *Marsh forts*. It remained his view that to a greater or lesser extent all these enclosures were defensive, and he also applied the categories more systematically across the total of 106 forts he then knew of. One of them had been found by Robert Kinghorn, who subsequently reported

another eight, increasing the total to 114 (1935). While Berwickshire was largely excluded from the post-war fieldwork programmes, in the early 1950s many of the earthworks in the county were visited during the Marginal Lands Survey, and it was then that the lesser enclosures, for example around Coldingham Loch, were designated as settlements.

The list of Berwickshire hillforts contained in Hogg's *Index* (1979) is largely cast in this post-war vein, but its contents are drawn from the revised edition of the Inventory (1915) and Craw's paper (1921). In all, it runs to 112 entries, 99 of which are taken from the Inventory. Sixteen are marked with an X to denote that their status had been downgraded, including the Coldingham Loch settlements, and a further seven are given a D, an unhelpful export of dun terminology from the west to signify the diminutive size of some enclosures; retaining the latter gives a total of 96 for the county.

At about the same time that the *Index* was published the Royal Commission embarked on yet another review of eastern Berwickshire, largely in response to the mass of new cropmark evidence. Cropmarks have revolutionised our understanding of the Berwickshire landscape and are currently the subject of an ambitious mapping programme. Work is not sufficiently advanced to quantify changes in the pattern of classified forts since 1979, but it is clear that while some have been downgraded, yet others have been discovered, some of them, as Craw foresaw, in places where there were sketchy antiquarian references to earthworks or suggestive place-names. At the time of writing, CANMORE contains 104 monuments carrying the classification of *Fort*, though only 49 were amongst those noted by Curle a century ago. No less than 44 of them have been photographed as cropmarks, including a number that were recorded as upstanding sites by Curle. More importantly, cropmarks have revealed 297 enclosures, of which 114 are currently classified as *Settlement*. Even the most cursory examination of this material shows that they come large and small, some with single narrow ditches or palisades, others with several ditches, and in some cases with ditches so broad that they must have posed an appreciable barrier.

Kintyre

Kintyre, lying on the opposite side of the country at the

southern extremity of Argyll, provides a complete contrast to Berwickshire, on the one hand for its generally rugged topography, and on the other for the character of its archaeology. Here the known settlement record is dominated by relatively small drystone fortifications, though the summer of 2008 created conditions in which cropmarks revealed the ploughed-out ditches of a series of enclosures on the lower ground (David Cowley, pers. comm.); otherwise, only two of the known forts are defended with ditches (RCAHMS 1971, nos 161 and 166).

The *Statistical Accounts* have little to say about any fortifications, even the Rev. John Smith, a classically versed antiquary who devoted half his 50-page entry for the parish of Campbeltown to a real and imagined history of Argyll (vol. x (1794), 539); elsewhere it is only the vitrified fort at Carradale (Fig. 4) that elicits any commentary, albeit with reference to druids (*Stat. Acct.*, xii (1794), 485–6n). Any small drystone enclosure was a fort, and all 55 shown on the first edition OS 6in. maps, surveyed in 1866–9 and published 1869–73, are annotated as such. It may simply be that the *Dun*-names attributed to these structures in local lore—for example *Dun Fhinn*, Fingal's Fort—naturally translated into fort, though such names might equally signify no more than a hill.

The distribution identified in the 1860s by the Ordnance Survey prevailed until the fieldwork for the Royal Commission County Inventory covering Kintyre (RCAHMS 1971). Christison, who did not survey Kintyre, shows 50 symbols on his distribution map of forts (1898, 386), while Gordon Childe shows 45 (1935, 274–5, map 4) and Leo River's map a total of 61 (1966, map in end folder). By this last publication, however, they were split between *Fort* and *Dun*, numbering seventeen and 44 respectively. The fieldwork for the County Inventory increased the number of forts to 22, and duns to 60, four of the latter overlying forts. The work by the Royal Commission may have refined the thinking that lay behind this terminology, but the arbitrary character of the division between forts and duns, and the way that it was applied, has proved unhelpful to other researchers, who have defined different categories, such as *Dun Enclosure* and *Dun House* (Harding 1984, 218–19; 2004), or *Atlantic Round-house* (Armit 1992, 16–21), the latter harking back to Childe's *Castle Complex*, albeit without the social connotations. Whatever system might be preferred, it is the Royal Commission's definition that here underpins the Hogg *Index*.

Discussion

The stimulus to explore this subject stemmed from an overland trip from Edinburgh to Prague, covering a few thousand miles and a sample of European hillforts and *oppida*. What are the points of reference for the Scottish Iron Age to these huge and massively defended enclosures? For that matter, what are the points of reference with southern England, where the term hillfort carries connotations of enclosure and defence on scales that are rarely encountered in Scotland? But it is of course that sense of fortification that provides the running thread, albeit generally in much smaller units in the north of Britain than elsewhere in Europe (Ralston 2006). The discussion turned upon the distribution of hillforts as much as anything else, and whether the perception of the dense concentration in, for example, the Scottish Border counties was founded on any underlying truth, or whether the equivalent sites elsewhere were simply lost in other categories of settlements. Was like being compared with like? Would Little Woodbury, with a ditch 3.5m broad and 2m deep, be a fort or a settlement if relocated from Wiltshire to Roxburghshire? Hogg's *Index* (1979) was advanced variously as the prologue to a solution and the problem. There seems little point in deconstructing the *Index* in detail, which would risk an unwarranted attack upon its author; it was a work in progress, notes to be reviewed and refined, offered by way of assistance to fellow travellers, and cast in a world where classification promised order that might find some resonance in history. What has emerged clearly from the case-studies, however, is the variability of the information upon which the *Index* is based, juxtaposing concepts of forts from the late nineteenth century to the 1960s. The only saving grace is that every generation seems to have shared the belief that most ancient enclosures were constructed to provide a measure of security or even defence for their occupants.

This, perhaps, is the real nub of the problem: why enclosure (A. Harding *et al.* 2006)? To date, the distinction of fort, to resort to the Scottish terminology, has been based on an entirely subjective assessment of the strength of an enclosure's perimeter, which for Royal Commission investigators comes with a laying on of hands, an unspoken authority vested in a century of tradition. The classifications of a County Inventory had fairly strict definitions, though in every case these have been evolving ever since. Thus, the concept of *Homestead* as distinct from *Settlement* died in Eastern Dumfriesshire (RCAHMS 1997), and the separation

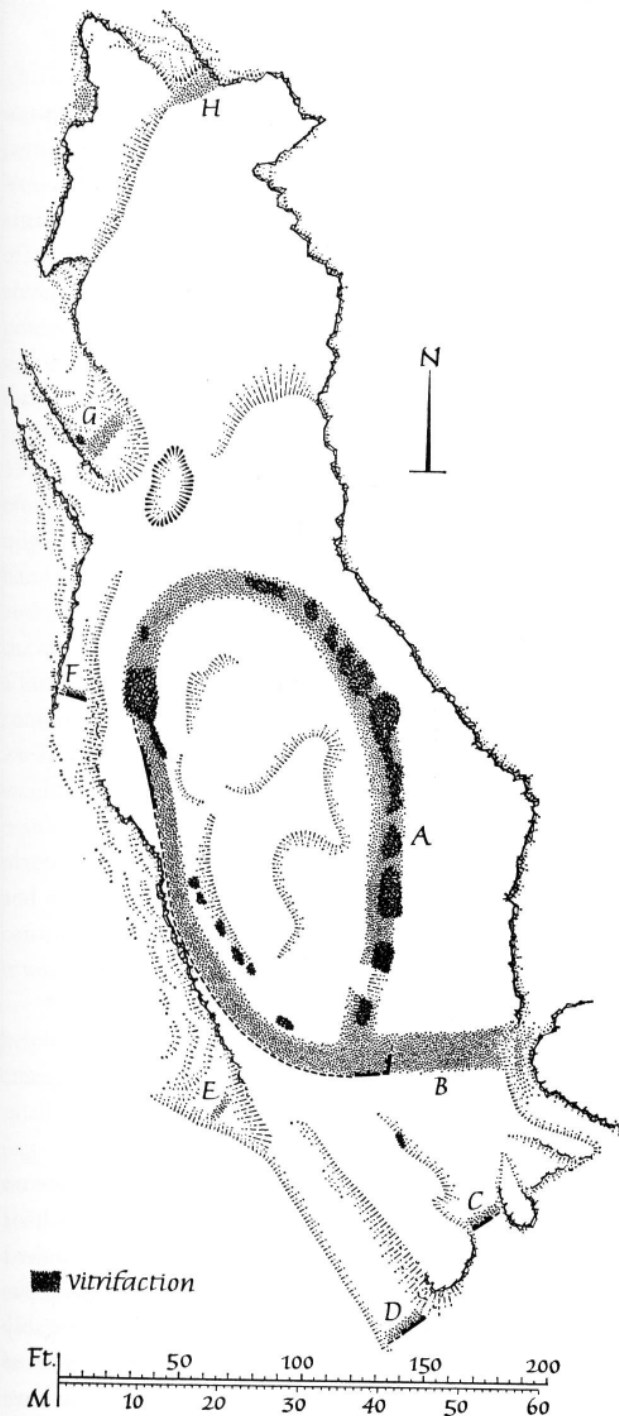
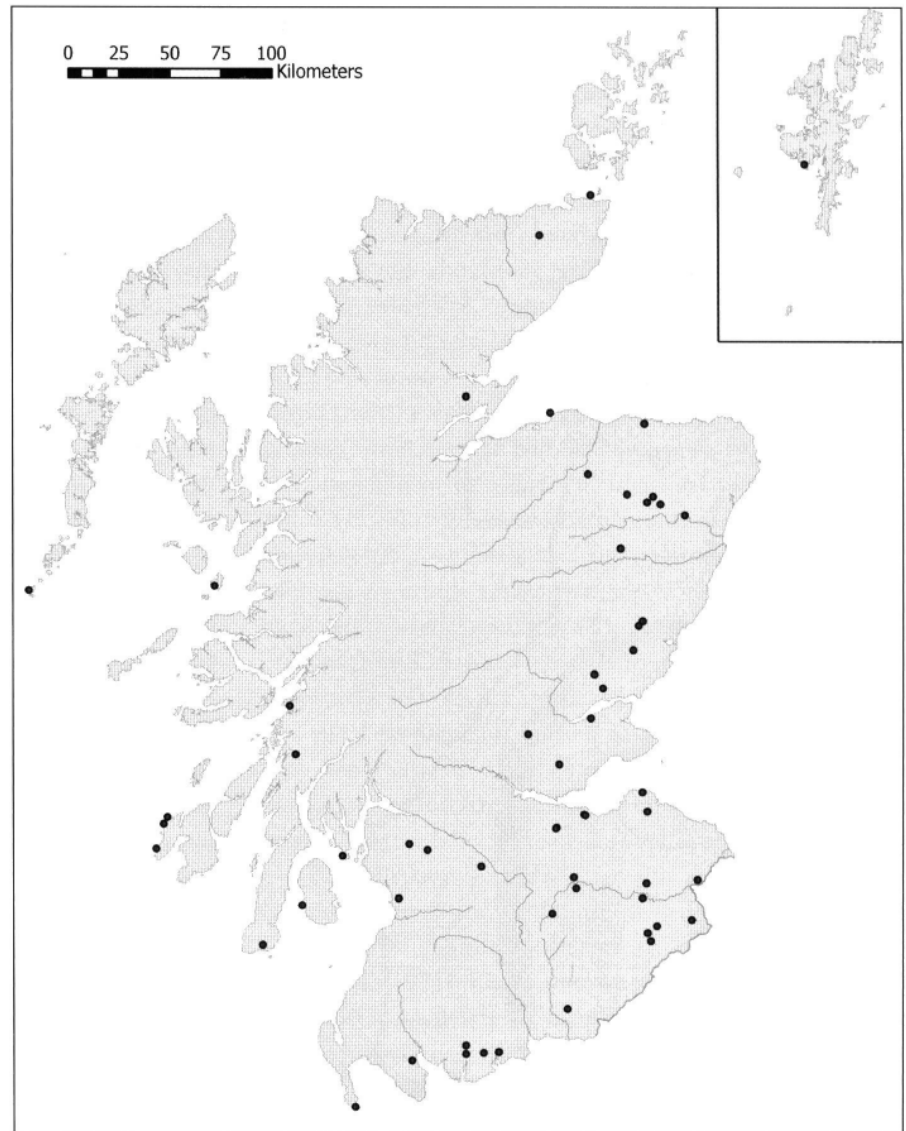


Fig. 4—The vitrified fort at Carradale Point, Kintyre, as planned by the Commission in 1960 and published in 1971 (RCAHMS 1971, 67, fig. 40).

Fig. 5—The larger forts (occupying 2ha or more) of Scotland. This map represents the authors' current information and indicates that such sites are more common than appeared to either Childe in 1935 or Feachem in 1966, although they still form a small proportion of Scottish forts. Cartography: Shelly Werner.



of *Fort*, *Settlement*, *Earthwork* and *Enclosure* in Roxburghshire or Peeblesshire bears little relationship to the current use of these terms. And it is in this context that it is possible to identify with the less formal position that Feachem had already adopted by 1963.

The relative slightness of perimeters is a recurrent feature and has often led to schemes of enclosing works being considered unfinished (Feachem 1971). In most cases, however, the uneven scale of these enclosures at different parts of the circuit suggests calculated design, simply to be more imposing where the site was most visible, often near entranceways, as is the case of the outer works at Dunnideer, Aberdeenshire (RCAHMS 2007, fig. 6.27). At a grander

scale, the wing-walls at either end of the vitrified fort on Knock Farril, Easter Ross, can be seen in the same light. This is not to deny that unfinished fortifications exist, indeed some are very convincing, so much as to see fort defences as 'works in progress'. Slightness does not inevitably compromise function, and even apparently feeble lines of enclosure, suitably garnished with timberwork, may have proved effective deterrents after a gruelling climb; witness the White Meldon, Peeblesshire, or for that matter Lady Blair Plantation in the same county, this latter designated *Settlement* and thus missing from Hogg's *Index*. In any case, Iron Age fortification lines were not designed to resist all-out war, as Ian Armit (2007) has recently argued anew, and

many may have been invested with other symbolic attributes (Lock 2007).

Two millennia of erosion have also played their part. The sheer thickness of the wall foundations of some of the seemingly slighter enclosures, for example, implies that their perimeters originally stood several metres high. This is a lesson that can be seen at *Brigantium*, a reconstructed settlement in Redesdale, which entirely alters our perception of the character of such walls. Similarly, preconceptions about palisades in the Border counties have obscured the potential strength of another group of enclosures, conjuring up the impression of a wooden fence rather than a formidable timber stockade; some of these enclosures were as surely forts as any of their stone-built counterparts (Halliday 1995, 33–4). Leaving aside the sunken farmyards that are often found fronting clusters of roundhouses, an enclosure might better be construed with two basic roles: on the one hand to afford some measure of protection for its occupants, and on the other to project the status of those occupants in the expression of that protection. If so, then the definition of a fort in Scotland is a lost cause, a meaningless division in a continuum of enclosures where the scale of the perimeter works is a proportionate measure of wealth and status. It would be too simplistic to suggest that in the Iron Age every man's home was his fort, but at least this sort of concept places the construction of an enclosure in a social context and recognises that surrounding walls or ramparts could be constructed at most levels of society, even if at its lower levels it was no more than a wicker fence and an aspiration.

As an archaeological definition, however, this is hardly helpful, but it does serve to underline the regionality that emerged in Scotland during the first millennium BC. While small enclosures are found throughout the cropmark record (e.g. RCAHMS 1994), the greater number with ditches in excess of 2m in breadth probably lie in the south-east of Scotland and across into Dumfries and Galloway, exactly the areas in which there is the major proliferation of forts first mapped by Christison. Until such times as the cropmark data are fully analysed this is little more than an assertion, but contrast this with the concentration of unenclosed settlement remains and souterrains revealed in the same medium extending northwards from the Forth estuary. Forts and enclosures are reasonably numerous up to the southern edge of the Grampians, but north of the Forth the incidence of those usually accepted as forts falls away, leaving no more than a scatter that present a range of contrasting scales in size and strength. The White Caterthun and Finavon in Angus,

and Tap o' Noth and Dunnideer in Aberdeenshire, for example, are relatively compact fortifications with massively constructed walls which, with the exception of White Caterthun, are heavily vitrified, whereas the outer enclosures beneath Dunsinane Hill, Perth, and Tap o' Noth, or that on Kinpurney Hill, Angus, are much larger enclosures with only a single rampart. At the other extreme there are a small number of much smaller defensive earthworks, though given the Roman masonry incorporated into the small promontory work at Inchtuthil, Perthshire, some at least may fall rather later in the 'long Iron Age'. These three different types of fort probably express different aspects of the cultural history of eastern Scotland, possibly at different times, and their definitions or explanations need share little in common with those pertaining to forts and enclosures in Berwickshire and the Borders, let alone to the forts and duns of Kintyre and the rest of Argyll, or for that matter the Maiden Castles of this world in southern England. As such, in their different guises they are expressions of the individuality of regional histories in Iron Age Scotland.

If there is possibly one exception that cuts across this rule it might be that size really does matter. By far the majority of the 1,305 forts mapped here are tiny enclosures, but what of the small number of much larger enclosures, Feachem's (1966, fig. 13) minor *oppida*, which Childe compared with southern English hillforts? Those on Tap o' Noth, Dunsinane and Kinpurney Hill have already been mentioned, but taking the fairly arbitrary division of 2ha they are scattered throughout Scotland, although most numerous in the Tyne–Forth province (Fig. 5). Again, however, it would be a mistake to assume that all had the same function. Compare the numerous platforms for timber roundhouses within the ramparts of Eildon Hill North or Tap o' Noth with the barren interior of Dun Mingulay, a 20ha promontory projecting westwards from the spectacular cliffs on the west coast of this small island at the southern end of the Western Isles; fully occupied, this would have far outstripped the carrying capacity of the island itself, and probably the neighbouring islands too.

Conclusion

Our terminology needs to be allowed to breathe, and we can perhaps begin to see that 'fort' as it has been applied to date in Scotland may mean different things in different places and at different times. It is no more than a subjective label that

cuts obliquely across the settlement record of later prehistoric, and indeed early historic (Alcock 2003), Scotland. This is not to say that the term does not have its uses, but it cannot be allowed to constrain the interpretation of the wealth of evidence for settlement that exists throughout Scotland.

It is worth taking note, however, that a little over a hundred years of fieldwork and aerial reconnaissance since 1898 has not substantially altered the broad patterns of distribution established by Christison, and of the OS surveyors before him—at least for Scotland south of the Great Glen and for the Clyde estuary islands. Forts and enclosed settlements were thus early established to be major elements of some Iron Age landscapes and much less significant ones of others. That imbalance remains the case, as for some other areas of the British Isles, and indeed for temperate continental Europe. Iron Ages without hillforts are quite certainly possible, and the absolute numbers of forts in Scotland, and the distinction between forts and enclosures, should not, perhaps, unduly concern us.

References

- Alcock, L. 2003 *Kings and warriors, craftsmen and priests*. Edinburgh. Society of Antiquaries of Scotland.
- Allcroft, A.H. 1908 *Earthworks of England: prehistoric, Roman, Saxon, Danish, Norman, and mediaeval*. London. Macmillan.
- Anderson, J. 1883 *Scotland in pagan times: the Iron Age*. Edinburgh. David Douglas.
- Armit, I. 1992 *The later prehistory of the Western Isles of Scotland*. British Archaeological Reports, British Series 221. Oxford.
- Armit, I. 1999 Life after Hownam. The Iron Age in south-east Scotland. In Bill Bevan (ed.), *Northern exposure: interpretative devolution and the Iron Ages in Britain*, 65–79. Leicester Archaeology Monographs 4. Leicester.
- Armit, I. 2007 Hillforts at war: from Maiden Castle to Taniwaha Pā. *Proceedings of the Prehistoric Society* 73, 25–37.
- Beveridge, E. 1903 *Coll and Tiree: their prehistoric forts and ecclesiastical antiquities; with notices of ancient remains on the Treshnish Isles*. Edinburgh. Privately published.
- Beveridge, E. 1911 *North Uist: its archaeology and topography; with notes upon the early history of the Outer Hebrides*. Edinburgh. Privately published.
- Buchsenschutz, O.E. 1984 *Structures d'habitats et fortifications de l'Age du Fer en France septentrionale*. Mémoires de la Société Préhistorique Française 18. Paris.
- Childe, V.G. 1935 *The prehistory of Scotland*. London. Kegan Paul, Trench, Trubner.
- Childe, V.G. 1940 *Prehistoric communities of the British Isles* (1st edn). London. Kegan Paul, Trench, Trubner.
- Childe, V.G. 1946 *Scotland before the Scots*. London. Methuen.
- Christison, D. 1887 The prehistoric forts of Peeblesshire. With plans and sketches. *Proceedings of the Society of Antiquaries of Scotland* 21 (1886–7), 13–83.
- Christison, D. 1895 The forts of Selkirk, the Gala Water, the southern slopes of the Lammermoors, and the north of Roxburgh. *Proceedings of the Society of Antiquaries of Scotland* 29 (1894–5), 108–79.
- Christison, D. 1898 *Early fortifications in Scotland: motes, camps, and forts*. Edinburgh and London. William Blackwood.
- Craw, J.H. 1921 Notes on Berwickshire forts, with a description of those recently discovered. *Proceedings of the Society of Antiquaries of Scotland* 55 (1920–1), 231–55.
- Feachem, R.W. 1963 *A guide to prehistoric Scotland*. London. Batsford.
- Feachem, R.W. 1965 *The North Britons. The prehistory of a Border people*. London. Hutchinson.
- Feachem, R.W. 1966 The hill-forts of northern Britain. In A. L. F. Rivet (ed.), *The Iron Age in northern Britain*, 59–87. Edinburgh University Press.
- Feachem, R.W. 1971 Unfinished hill-forts. In D. Hill and M. Jesson (eds), *The Iron Age and its hill-forts; papers presented to Sir Mortimer Wheeler*, 19–39. Southampton University Monograph Series, 1. Southampton.
- Halliday, S.P. 1995 The Borders in prehistory. In D. Omand (ed.), *The Borders book*, 21–37. Edinburgh. Birlinn.
- Harding, A., Sievers, S. and Venclová, N. 2006 Introduction. In A. Harding, S. Sievers and N. Venclová (eds), *Enclosing the past. Inside and outside in prehistory*, ix–x. Sheffield. J. R. Collis.
- Harding, D.W. 1984 The function and classification of brochs and duns. In R. Miket and C. Burgess (eds), *Between and beyond the walls: essays on the prehistory and history of north Britain in honour of George Jobey*, 206–20. Edinburgh. John Donald.

- Harding, D.W. 2004 *The Iron Age in northern Britain. Celts and Romans, natives and invaders*. London. Routledge.
- Hogg, A.H.A. 1979 *British hill-forts: an index*. British Archaeological Reports, British Series 62. Oxford.
- Kinghorn, R. 1935 Unrecorded Berwickshire antiquities, being the Chalmers-Jervise Prize Essay for 1933. *Proceedings of the Society of Antiquaries of Scotland* 69 (1934–5), 157–67.
- Lock, G. 2007 Wessex hillforts after Danebury: exploring boundaries. In C. Gosden, H. Hamerow, P. de Jersey and G. Lock (eds), *Communities and connections. Essays in honour of Barry Cunliffe*, 341–56. Oxford University Press.
- MacDonald, J. 1891 *Place-names of Strathbogie, with notes historical, antiquarian and descriptive*. Aberdeen. D. Wyllie and Son.
- Maclagan, C. 1875 *The hill forts, stone circles and other structural remains of ancient Scotland*. Edinburgh. Edmonston and Douglas.
- Maxwell, G.S. 1969 Duns and forts—a note on some Iron Age monuments in the Atlantic Province. *Scottish Archaeological Forum* 1, 41–52.
- Piggott, C.M. 1948 The excavations at Hownam Rings, Roxburghshire, 1948. *Proceedings of the Society of Antiquaries of Scotland* 82 (1947–8), 193–225.
- Piggott, S. 1966 A scheme for the Scottish Iron Age. In A. L. F. Rivet (ed.), *The Iron Age in northern Britain*, 1–15. Edinburgh University Press.
- Raftery, B. 2004 Hillforts. In P. Bogucki and P. J. Crabtree (eds), *Ancient Europe 8000 BC–AD 1000. Encyclopedia of the barbarian world*, vol. 2, 160–4. New York. Charles Scribner's Sons.
- Ralston, I. 1996 Recent work on the Iron Age settlement record in Scotland. In T. C. Champion and J. R. Collis (eds), *The Iron Age in Britain and Ireland: recent trends*, 133–53. Department of Archaeology and Prehistory, University of Sheffield.
- Ralston, I. 2006 *Celtic fortifications*. Stroud. Tempus.
- Ralston, I. 2009 Gordon Childe and Scottish archaeology: the Edinburgh years, 1927–1946. *European Journal of Archaeology* 12 (1–3), 1–43.
- RCAHMS 1909 Royal Commission on the Ancient and Historical Monuments and Constructions of Scotland, *First report and inventory of monuments and constructions in the county of Berwick*. Edinburgh. HMSO.
- RCAHMS 1915 Royal Commission on the Ancient and Historical Monuments and Constructions of Scotland, *Sixth report and inventory of monuments and constructions in the county of Berwick* (rev. edn). Edinburgh. HMSO.
- RCAHMS 1956 Royal Commission on the Ancient and Historical Monuments of Scotland, *An inventory of the ancient and historical monuments of Roxburghshire* (2 vols). Edinburgh. HMSO.
- RCAHMS 1967 Royal Commission on the Ancient and Historical Monuments of Scotland, *Peeblesshire, an inventory of the ancient monuments* (2 vols). Edinburgh. HMSO.
- RCAHMS 1971 Royal Commission on the Ancient and Historical Monuments of Scotland, *Argyll, an inventory of the ancient monuments. Volume 1, Kintyre*. Edinburgh. HMSO.
- RCAHMS 1978 Royal Commission on the Ancient and Historical Monuments of Scotland, *Lanarkshire: an inventory of the prehistoric and Roman monuments*. Edinburgh. HMSO.
- RCAHMS 1994 Royal Commission on the Ancient and Historical Monuments of Scotland, *South-east Perth: an archaeological landscape*. Edinburgh. HMSO.
- RCAHMS 1997 Royal Commission on the Ancient and Historical Monuments of Scotland, *Eastern Dumfriesshire: an archaeological landscape*. Edinburgh. HMSO.
- RCAHMS 2007 Royal Commission on the Ancient and Historical Monuments of Scotland, *In the shadow of Bennachie*. Edinburgh. Society of Antiquaries of Scotland.
- Rivet, A.L.F. (ed.) 1966 *The Iron Age in northern Britain*. Edinburgh University Press.
- Roy, W. 1793 *The military antiquities of the Romans in Britain*. London. Society of Antiquaries.
- Seymour, W.A. (ed.) 1980 *A history of the Ordnance Survey*. Southampton. Dawson.
- Sinclair, J. (ed.) 1791–9 *The Statistical Account of Scotland*. Edinburgh.
- Williams, J. 1777 *An account of some remarkable ancient ruins lately found in the Highlands and northern parts of Scotland*. Edinburgh. William Creech.
- Wilson, D. 1851 *The archaeology and prehistoric annals of Scotland*. Edinburgh. Sutherland and Knox.
- Wilson, D. 1863 *The archaeology and prehistoric annals of Scotland* (2nd edn). Edinburgh. Sutherland and Knox.

Secondary occupation of Atlantic roundhouses: problems of identification and interpretation

Dennis W. Harding

In a seminal paper on Irish hillforts written nearly 40 years ago, Barry Raftery (1972, 51–3) reviewed critically the dating evidence for occupation of the cashel at Cahercommaun in County Clare, concluding that Hencken's (1938) dating of the site to the ninth century AD on the basis largely of a silver brooch, ringed pin and penannular brooch, the first from secondary filling of the souterrain, the others unstratified, unduly simplified what was probably a much more complex sequence. Raftery was concerned primarily with the artefactual assemblage, though he might equally have reviewed the structural and stratigraphic evidence, such as it was, for a longer sequence of occupation. A decade later Séamus Caulfield (1981) reinforced the case for an earlier foundation of the cashel on the grounds that seven saddle querns from the site could hardly have remained in use so long into the Early Christian period, when their supersession by rotary querns elsewhere in the Atlantic north and west could be dated to the later first millennium BC (at latest, as we might now reckon). He noted, however (*ibid.*, 210), that by 1979 Raftery himself was no longer convinced of an earlier occupation of the site, which he did not include in his 1994 synthesis of *Pagan Celtic Ireland*.

More recently Henderson (2000, 133–4) has re-examined the published evidence for structures and stratigraphy at Cahercommaun (see also Cotter 1999 for a reassessment of the cultural context of the site), noting with the benefit of more recent research a number of similarities with the secondary occupation of broch sites in Atlantic Scotland. In particular, he noted that most of the walls were described as single-sided, in effect being simply revetted into the accumulated debris of earlier occupation. He also noted that hearths were defined by edge-set stones and that several on plan appeared to be three-sided or open-ended rectangular hearths of the kind now recognised as characteristic of the secondary, cellular occupation of sites in Atlantic Scotland. Gilmour (2000a) has further drawn attention to the use of vertical slabbing in combination with horizontal coursing in the walls of structure 4, again in Atlantic Scotland a characteristic building technique of post-broch cellular construction. Simply looking at the sections,

with several hearths suspended 1m above the foundations of structures with which they are assumed to be contemporary, it is evident that the site could have been occupied over a protracted period. Though Hencken was evidently well aware of this, describing the successive overlying deposits in the interior in some detail, it appears that no attempt was made to segregate finds on the basis of stratigraphy.

What Raftery had highlighted in 1972 was to prove a perennial problem in the dating of the occupation of Atlantic roundhouses in Scotland, namely that the undiagnostic character of the artefactual assemblage of the earlier Iron Age in contrast to the later Iron Age, or Early Christian period in Ireland, meant that material evidence for earlier occupation could easily be obscured by a more distinctive later assemblage. On older excavations the stratigraphy may not have been observed reliably, and even in more recent investigations later occupation may have proved intrusive, resulting in mixed assemblages. Hammerstones, bone points and spindle-whorls can be totally unhelpful as dating evidence, the typology of blue glass beads and plain lignite bracelets being not much better. But they could as easily belong to the second half of the first millennium BC as later. The glass dumb-bell bead and quartz strike-a-light are certainly types found on Scottish broch sites, where they are generally assigned to an earlier first-millennium AD date rather than much later. Typological confidence only resurfaces with developed ring-headed pins, penannular brooches and double-sided bone combs. This could be a summary of the problems posed by the artefactual sequence at Beirgh, west Lewis (Harding and Gilmour 2000), as well as at Cahercommaun, the difference being that at Beirgh the extended vertical stratigraphy, 2m deep from the immediately post-broch levels alone, allowed identification of successive structural phases in a fashion that a more compressed sequence might not. A further difference is that at Beirgh the ceramic assemblage showed significant changes in vessel profiles and decoration, at least from the post-broch period, which, together with the output from other recent excavations, is contributing to a clearer and more useful ceramic series for the Western Isles at least (Harding 2000).

In Atlantic Scotland the idea of long, though not necessarily continuous or uninterrupted, site sequences is not novel. In the Northern Isles the classic Shetland sequence at Jarlshof (Hamilton 1956) certainly extended from the later Bronze Age to the Norse period, and more recent excavations at nearby Old Scatness have yielded a sequence that begins, if not in the late Bronze Age, with a broch that has finally demonstrated that Atlantic roundhouses have their origins several centuries earlier than the older conventional chronology would allow (Dockrill *et al.* 2005; 2006). Similarly, on Orkney the older excavations at Gurness undoubtedly shovelled away much of the later post-broch occupation (Hedges 1987), but left an extensive area of the broch 'village' that probably still post-dates the broch's original construction and occupation. At the Howe (Smith 1994), secondary occupation was likewise manifest mainly in the agglomeration of cellular buildings around the broch walls and courtyard. The problem in distinguishing secondary from primary occupation has lain in the *internal* sequences of broch sites. Ironically, this is not a complication to which the pioneers of broch studies were blind. Joseph Anderson (1874) had recognised the roundhouse wall within the Yarrows, Caithness, broch as secondary, and Sir Henry Dryden (1874, 205) reported from Shetland that 'in nearly all the brochs which have been excavated have been found constructions, more or less extensive, inside and outside, apparently of a later date than the original towers; at least the various persons who have conducted the examinations have independently come to the same conclusion'. He was not apparently referring to late medieval or early modern reuse but to secondary occupation still within the 'long Iron Age' (for the term, see Harding 2004).

The nineteenth-century investigators adjudged these structures to be secondary mainly on the grounds that they were of inferior construction to the brochs themselves (Joass 1874, 99), which certainly accords with Hencken's observations at Cahercommaun. At Beirgh in the mid-1980s we were initially inclined to view these rather ephemeral remains as collapse from the broch walls, but where they had survived extensive damage from subsequent structural reorganisation it soon became clear that their crudely coursed and largely unfaced construction belied their regular, cellular plans. Commonly the walls were one-sided, that is, they were revetted into a backing of rubble from the rough levelling of previous buildings, and sometimes, but not always, faced with edge-set slabs or boulders. Above this the coursing commonly began to corbel inwards to reduce the

span of the roof (Fig. 1a). Unlike more sophisticated corbelling, the walls may have been braced, like the more recent *cleitan* of St Kilda (Stell and Harman 1988), with lintels and then capped with a turf roof or conceivably with timber bracing and thatch.

This coarse stonework, however, was not the only building technique deployed in the cellular phases at Beirgh. Edge-set slabs of no great size clearly defined the outline of cell 5, with substantial timbers still *in situ* at the doorway (Fig. 1b). Clearly the slabs could not have provided support as a wall, but they could have been facing for a low turf wall that supported a timber and thatched superstructure. An alternative to turf would be peat, which could be perfectly serviceable as building blocks provided the roof and eaves were maintained in watertight condition. Significantly, perhaps, the entire interior appears to have had a layer of peat as the basal foundation of the primary cellular phase 9. Why a combination of materials should be used is not entirely clear. A possible shortage of building timber might certainly have been a constraint, though there is every reason to suppose that Iron Age communities managed their limited supplies and even stockpiled North American driftwood as opportunity provided (Church 2002). But stone would have been in ample supply, particularly if, as appears to have been the case at Beirgh and possibly in a number of other instances, the broch walls had been deliberately and systematically reduced in the opening centuries of the first millennium AD. Turf or peat would have had the merit of good insulation, and its more widespread use, especially for non-monumental domestic settlements, could in part explain the apparent absence of other classes of field monument that were demonstrably contemporary with the brochs.

The existence of secondary occupation within brochs is hardly a matter of dispute; in fact, there is hardly a single modern broch excavation that has not yielded evidence of secondary occupation. Distinguishing the secondary assemblage from the primary is more difficult, especially if, for a variety of taphonomic reasons, there is relatively little soil accumulation. Dun Cuier on Barra (Young 1956) has proved particularly contentious in this regard. Its plan, with secondary roundhouse wall eccentrically describing an oval inside the inner wall of the Atlantic roundhouse, is surely a classic instance of later construction within an earlier shell (Armit 1988; Harding 1997), like the secondary roundhouses within Dun Mor Vaul, Beirgh, Yarrows (Fig. 2a), Carn Liath (Fig. 2b) and many others. Its occupation in



Fig. 1a—Beirigh, west Lewis: cell 1a with vertical slabs and horizontal courses/corbeling above and small 'souterrain' passage behind. The broch wall with scarcement lies around top background.



Fig. 1b—Beirigh, west Lewis: cell 5, marked by edge-set slabs to right and left of horizontal ranging pole, with stone packing of timber door posts in foreground. The secondary roundhouse wall curves around from bottom left to top background, with re-entrant into broch gallery behind vertical slabs against broch wall top left. The broch scarcement is directly behind these slabs.

the sixth–ninth centuries AD is undisputed, being attested by pins, composite bone combs and tall-rimmed plainware pottery. But *pace* MacKie (2005, 17–18), if the plan demands a two-period occupation, the Atlantic roundhouse is patently the earlier, whether or not a primary floor level has survived. The location of the bar-hole within the entrance passage and the question of the location of any possible intramural staircase may be crucial to those for whom architectural typology is paramount, but to the issue of the initial dating of the galleried structure it is irrelevant. The central hearths are of the three-sided mid-first-millennium AD type and therefore entirely consistent with secondary occupation. In fact, according to current reconstructions of Atlantic roundhouses (Armit 2003), the broch period hearth would have been located on the raised, main occupation level rather than in the basement. Though the finds were not published by context, the apparent proximity of pins, comb fragments and plainware pottery would be consistent with a date in the third quarter of the first millennium AD. The only odd aspect is that the secondary building appears to have been a simple roundhouse, whereas at this date one might have expected a cellular or figure-of-eight plan. It is possible, of course, that ephemeral cellular structures were missed in the reported ‘tumble’ of the upper levels of the interior, or that they had been destroyed by the intrusive, early modern rectangular building.

It is, however, the pottery assemblage that affords an important clue to the span of occupation involved. With the benefit of subsequent research, it is now possible to refine the Iron Age ceramic sequence for the Western Isles. At the Loch na Beirgh (Harding and Gilmour 2000) in west Lewis the latest occupation was characterised exclusively by plainwares, often with relatively slack profiles and tall rims. Similar wares were found in the late phases at the Udal (Lane 1990, ill. 7.3), and there is no basis for expecting more than local variation further south on the island chain. Decoration is much more prolific in earlier phases but divides distinctly into two kinds: incised ornament in a variety of basic geometric designs, and applied cabled cordons around the girth of the vessel and sometimes around the neck. Plain coarseware seems to be a common denominator throughout. Because neither excavations at Beirgh or Dun Vulan (Parker Pearson and Sharples 1999) were able to examine the primary levels of the broch interior, it is still not absolutely clear which particular variants of these styles are representative of the second half of the first millennium BC.

But similarities between Dun Bharabhat (Harding and Dixon 2000) and Dun Mor Vul (MacKie 1974) suggest that the period from 500 BC sees not only jars of ‘Vaul’-ware type but finer wares with incised ornament too. Everted-rim vessels are present at Dun Bharabhat, but without the classic arcaded ornament of the Clettraval style, which probably does not make its appearance until the early first millennium AD. Applied cabled cordons too would appear to be present from the earlier Iron Age. Both incised ornament and applied cordons continue into the immediately post-broch phase at Beirgh, but with the ensuing cellular period incised ornament goes out of fashion totally. Applied cordons continue, with the addition of exotic hoops, loops and horseshoes (Harding 2000, fig. 10) that are closely paralleled by a couple of examples from Dun Cuier. At Dun Cuier incised ornament is virtually absent. A couple of sherds were described as coming from the layer of sand over natural rock, which would be as primary as the limited stratigraphy permitted, but are also said to be abraded and possibly rubbish survivals. None of the material assemblage from within the dun, therefore, demands an *earliest* Iron Age date, but the applied cabled pottery should indicate occupation at least by the opening centuries of the first millennium AD and should have given way to plainware around the middle of the millennium. Both structural and material evidence therefore argues for primary and secondary occupation, perhaps even with an interval of abandonment between them.

A crucial example of secondary rebuilding within a broch court is, of course, the substantial roundhouse at Dun Mor Vul (MacKie 1974). The excavator considered the possibility that it had been an aisled wheelhouse, but concluded that ‘the precise nature of the secondary structure inside the demolished broch is obscure’ (*ibid.*, 88). Occupational material (layer 3) had accumulated after the secondary wall’s construction, but the absence of a hearth added to the ‘mystery’ (*ibid.*, 50). The mystery would be resolved, of course, if we accept as a first step the probability that the hearth itself was secondary. MacKie recognised that it was stratigraphically later than layer 6, context Iota, which he regarded as the early broch floor (*ibid.*, 42), and associated it with ‘a drastic change in the function of the tower from a refuge capable of accommodating perhaps fifty or more people temporarily in an emergency to a permanently occupied residence occupied only by a single family’ (*ibid.*, 87). An obvious second step, though not one demanded by the first, would be to accept Armit’s (1991,



Fig. 2a—Yarrow, Caithness: broch entrance by ranging pole and thick secondary roundhouse walls to right and far left.



Fig. 2b—Carn Liath, Sutherland: broch wall with secondary roundhouse wall.

210) proposal that the earliest levels with their associated radiocarbon dates represent activity at the time of the construction and primary occupation of the broch. As MacKie (1997, 152) observed, 'if the lowest occupation level was in fact a primary broch deposit the tower could well be somewhat older than the report proposed *and the distinction between broch pottery and aboriginal pottery would be lost*' (my italics). It is certainly true that the proportion of everted-rim pottery increases with time in the Dun Mor Vul sequence, though it *was* found in the earlier levels, including the primary context Epsilon, notwithstanding the excavator's rather ungracious attempt to dismiss that as intrusive from a higher level through an 'inexperienced excavator' (*ibid.*, 38). As the evidence from Dun Bharabhat suggested, the Clettraval variant of everted-rim ware may be late, but there is every reason to believe that other variants developed rather earlier. The fact that this might undermine the association of everted-rim ware with immigrant broch-builders in contrast to native Vul-ware users is hardly good reason not to review the Dun Mor Vul material in the light of increasing evidence for an earlier beginning of the monumental Atlantic roundhouse tradition. In fact, the early assemblage at Dun Mor Vul bears striking similarities to that from Dun Bharabhat (Fig. 3), and it is high time that Dun Mor Vul took its place among potentially early brochs.

There is no reason to suppose that the demise of brochs was a synchronous or synchronised event across Atlantic Scotland, but in several instances there is evidence that broch towers were deliberately reduced around the first or second centuries AD, immediately prior to the construction of post-broch roundhouses within the inner walls. It has often seemed odd that builders should insert an additional wall, less well constructed than the truncated broch wall, which would surely have served rather better and without the added disadvantage of reducing the internal living area of the secondary roundhouse. Conclusive evidence for deliberate dismantling is quite hard to adduce, in principle or in practice, and certainly the case advanced for Dun Mor Vul is far from conclusive. A thin layer of wind-blown dust over the hearth may indicate exposure for a brief spell, but does it really prove a lack of roof and gallery lintels (*ibid.*, 87)? And a lack of debris in the yard from later collapse certainly indicates that much of the tower masonry must have been removed (*ibid.*, 56), but does it prove that the walls were deliberately and systematically reduced at the time of the secondary occupation? Certainly, if the site was to be reoccupied it would make sense to stabilise the broch walls

and perhaps to dismantle the upper levels, not only in the interests of safety but also to provide a ready source of building materials for the secondary operations. The case for a more systematic reduction of the broch walls was made by Hamilton (1968, 106–7) for Clickhimin, and at least here the layer of 'builder's debris' was clearly visible in the published section, though we may still wonder whether the explanation proposed was the only or most likely one. MacKie's (1994) case for the piles of stone outside the Gurness and Midhowe brochs as evidence of dismantling and stockpiling is more persuasive, and Gilmour's (2000b, 180) suggestion that the 'buttress' wall at Dun Vulcan (Parker Pearson and Sharples 1999) was the result of the same process would have interesting implications for that broch's dating. But the fact remains that not all towers were reduced in this way, as notable survivors like the Glenelg brochs testify.

The extent to which the broch structure was reused by secondary occupation in the shell of the building, and therefore the scale of likely dismantling, may best be indicated by the extent to which the secondary roundhouses respect earlier features. At Beirgh the roundhouse wall had a clear re-entrant through into galleries 6 and 7, and possibly at one stage access into gallery 3. But the entrance to the staircase at the end of gallery 5 was totally walled over. So whilst the former broch galleries may still have been partially accessible, the upper floors certainly were not, which would be consistent with the dismantling of the upper storeys of the building. At Dun Mor Vul, by contrast, though access to the former gallery doors 2 and 3 was blocked, the entrance to the staircase and to much of the ground-floor gallery remained open, suggesting that the upper levels may have remained in use. Alternatively, of course, the long staircase gallery may have been used while the staircase itself simply gave access to the reduced wall-head. In Caithness the secondary roundhouse wall within the Yarrow broch left open the entrances into ground-floor galleries and access to the intramural staircase, and the same is true at Carn Liath, Sutherland.

Where the broch walls only survive to truncated levels, reconstructing a roundhouse roof based either on these foundations or upon the secondary walls within them presents no great problem. Where the broch walls survive to a higher level, however, most conspicuously at Mousa, offering a plausible reconstruction for the secondary buildings within becomes more problematic. Some aspects of its architectural morphology, in particular its unusually

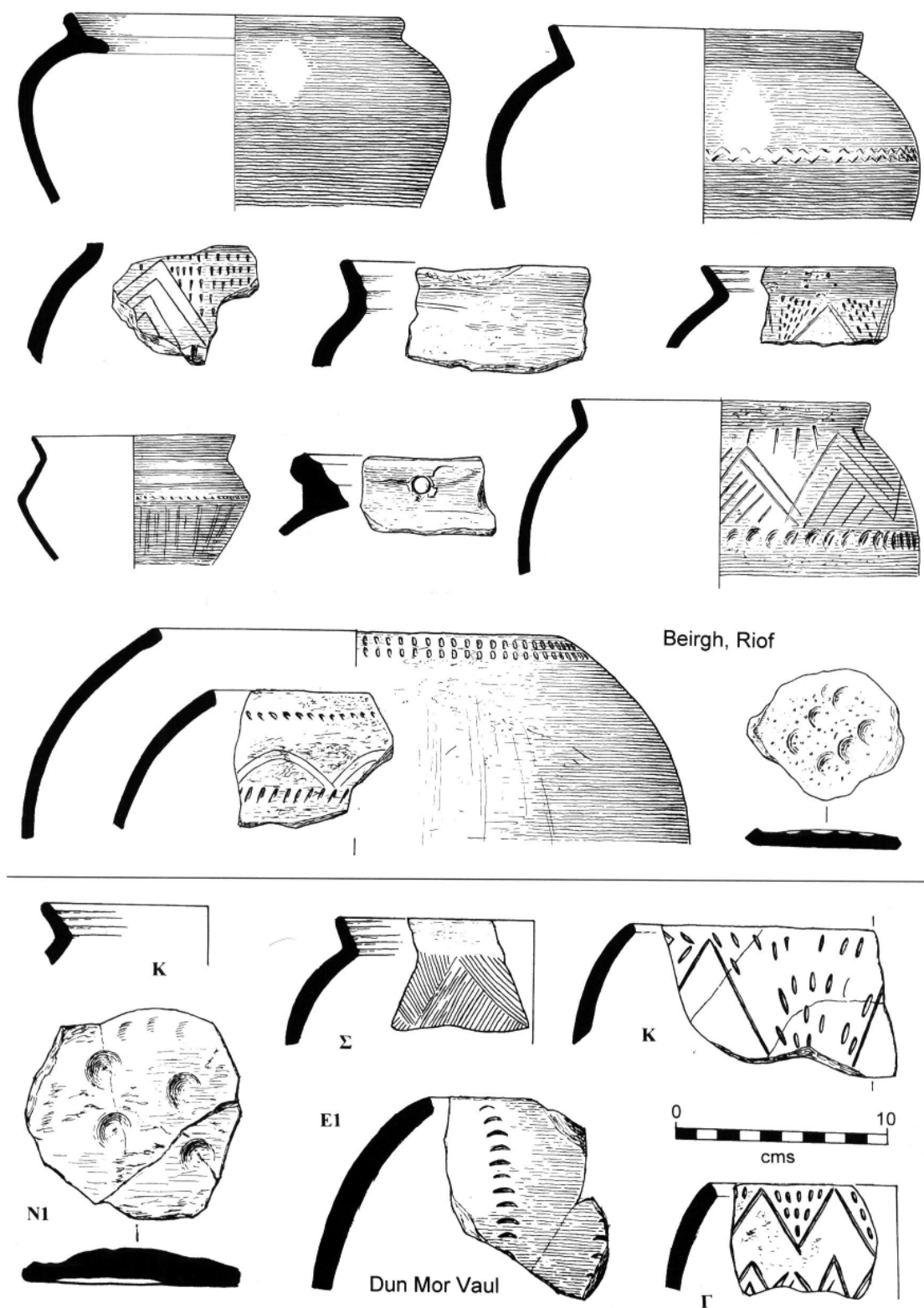


Fig. 3—Early Iron Age pottery from Dun Mor Vul, Tiree, and Beirgh, west Lewis.

high ratio of wall width to overall width and, perhaps not unrelated to that, the fact that its intramural staircase extends right to the wall-head, make Mousa untypical of broch towers in general (Fojut 1981). What is seldom discussed, however, beyond remarking its presence, is the nature of its secondary occupation, comprising an internal arrangement that has been likened to a wheelhouse and some residual external features of cellular character.

Because of the high ratio of wall width to overall width, the internal diameter at Mousa is extremely compressed at just over 6m, so that the capacity for secondary occupation that was not integral to the use of the broch tower itself would be limited. If visitors, intent upon reaching the intramural gallery and climbing the staircase to the wall-head, paused for just a moment in the ground-floor court (Fig. 4a), they might be impressed by how claustrophobically unappealing it would have been to occupy a wheelhouse, as conventionally understood, in the well of a derelict broch tower, the fabric of which was not being maintained. The fact remains that at Mousa the walls of the broch were not drastically reduced, which raises fundamental questions regarding the nature of the internal restructuring.

Hamilton (1983, 27) assumed, on analogy with Jarlshof and Clickhimin, that the secondary structure within Mousa was 'a wheelhouse built in the second or third century AD'. This was doubtless based upon the presence of a radial pier projecting from the secondary roundhouse wall, apparently one of three recorded by Sir Henry Dryden in 1866, and on analogy with other Shetland brochs like Clickhimin or Levenwick. In fact the RCAHMS *Inventory* of 1946 already recognised that the surviving pier (RCAHMS 1946, fig. 541E) overlay the secondary 'tank', which, together with the fact that it was not bonded in to the secondary roundhouse wall, suggested a third stage of construction. The fact that the broch walls, galleries and staircase were maintained implies continuing access to upper levels. Furthermore, as MacKie (2002, 10) observed, since the secondary wall 'did not block off the doorways to the mural cells behind, these evidently continued in use after the alterations'. Whereas elsewhere the dismantling of the broch is accompanied by a shift towards less monumental buildings, roundhouses or wheelhouses and then amorphous agglomerations of cellular construction, at Mousa the secondary occupation must still have appeared massively monumental externally, and hardly less so internally as well. Only perhaps in its final stage, represented by the 'bee-hive huts' reported by Dryden (1874, 208), of which only the very truncated traces remain

around the broch entrance, was the occupation of the tower effectively abandoned. Reconstructing the upper floor levels of the original broch tower is not entirely straightforward, though it seems reasonable to suppose floors, or at least a balcony or mezzanine, at the level of each of the two scarcements. MacKie (2002, 15), however, was surely right to infer a further floor at the level 4 landing, where a doorway giving access to the interior would otherwise be pointless. Which of these levels remained in use in the secondary phase of occupation cannot be demonstrated with certainty, but if the hearth at basement level was secondary, then some re-ordering of floor levels and their use would be implied. Nevertheless, the secondary radial piers, presumed by Hamilton to indicate a wheelhouse, cannot have formed part of a wheelhouse in any sense hitherto recognised in archaeological classification.

The classic wheelhouse, exemplified in Shetland by wheelhouses 1 and 2 at Jarlshof, have radial piers in which the progressive widening of the coursing with height anticipates the process of inward corbelling of the roofs of the peripheral cells. The central court was presumably roofed over in thatch or turf based on timbers that sprang from the inner end of the radial piers. There may be issues yet to be resolved regarding the method of integrating the central cone with peripheral corbelling, but essentially these buildings are single-storey constructions, however impressive in their internal vaulting. Yet some radial piers, including the surviving example from Mousa, do not display this progressive widening with height. Some from recent excavations at Old Scatness (Dockrill *et al.* 2005) not only are straight-sided to their surviving height but are also broader and triangular in plan, perhaps suggesting a different form of construction again from the classic wheelhouses. Is it possible that an archaeological fixation with architectural typology has confused and conflated more than one kind of building into the wheelhouse classification?

A key to this question may lie in the anomalous 'aisled roundhouse' at Jarlshof (Fig. 4b) and its closer counterpart at Old Scatness, structure 14 (Dockrill *et al.* 2005). The Jarlshof structure is anomalous because of the curious way in which it is constrained between the former broch wall and the enclosure wall, which would have distorted the symmetry of its roof in a manner that normally is regarded as crucial to aerodynamic stability. Both are anomalous in their combination of radial piers and a scarcement. It is generally accepted that a scarcement has to be related to an upper floor level, not necessarily at the level of the



Fig. 4a—Mousa, Shetland: secondary roundhouse wall by scale, with tertiary radial pier to right. In the background the entrance to the broch staircase is through the larger gallery entrance up left. Note also lower and upper scarcements.



Fig. 4b—Jarlshof, Shetland: aisled roundhouse scarcement is visible at level of top of radial piers.

scarcement itself but conceivably supported at a slightly higher level by a timber framework sprung from it. This plainly is incompatible with the notion of radial piers progressively arcing into corbelled roofs over a series of peripheral cells. In fact, the radial piers of the aisled roundhouse at Jarlshof, unlike the true wheelhouses on the same site, show no sign in their surviving state of arcing inwards; like their counterparts at Old Scatness, they are essentially straight-sided. The implication, therefore, is that they were not structurally integral to a series of corbelled cells, even if they created a radial division of space around the central court. In fact, they may have contributed with the scarcement to the support of an upper floor level. In so much as the concept of a wheelhouse is essentially a single-storeyed structure, therefore, these anomalous buildings are not wheelhouses at all. But they do demonstrate the principle of radial division of peripheral space around a central court, a product of the social use of space rather than of architectural morphology.

If the aisled roundhouses of Jarlshof and Old Scatness had an upper floor level, the abandonment of monumentality was perhaps a less radical process than has sometimes been assumed. In these 'anomalous' buildings from southern Shetland, geographically so close as doubtless to reflect local custom, we nevertheless see a transitional phase between the 'multi-storeyed monumentality' of the broch tower to single-storeyed roundhouses and wheelhouses that must reflect a social transition more complex than mere architectural typology might imply. The secondary occupation at Mousa then takes on a greater significance, since it surely retains the concept of 'multi-storeyed monumentality'. Here the secondary occupation entailed the construction of a new perimeter wall backing on to the inner broch wall but not preventing access to the intra-mural cells or broch gallery and staircase. There is no direct indication as to whether this phase of occupation had intermediate floors, nor where in the elevation its roof might have been located, but if access to upper levels and the integrity of the upper fabric was maintained there is every reason to assume that the building was occupied to its full height as before.

The same remains valid for the final phase, when the radial piers were introduced at ground-floor level. In Shetland it would appear that there was a form of roundhouse with radial piers at foundation level that was not a wheelhouse in the normal archaeological definition of a single-storeyed dwelling with corbelled cells surrounding a

central roofed court. In these radial roundhouses the piers doubtless supported an upper floor as well as providing stalled divisions at basement level. This was clearly recognised by Hamilton at Clickhimin, where he described the secondary 'wheelhouse' as 'a storeyed building furnished with timber uprights and floors. Access to the first floor was by a wooden staircase . . . at the top of which an extension was built leading to the staircase vestibule' of the former broch tower (Hamilton 1983, 22). This arrangement at Clickhimin (Fig. 5a) was occasioned by the fact that the broch staircase commenced at first-floor level, whereas elsewhere it might have been normal to access the staircase from basement level. In the Northern Isles in fact it was not uncommon for the staircase landing to be above basement level; at Gurness, for example, it was 1.8m above the present (i.e. secondary) floor level in the interior. But the clear implication is that the post-broch radial roundhouse at Clickhimin was still utilising whatever remained of the broch's upper floors, though probably only the first floor in reality. In fact the secondary wall at Clickhimin was built up to first-floor level, so that flooring at this level would not have presented a problem, especially with additional radial piers. A roof could presumably have been supported higher up on what remained of the broch walls after its partial dismantling.

An issue that arises in the case of Clickhimin relates to the two external exits at first-floor level. The upper courses as they survive today may have been substantially altered in the nineteenth century, possibly in renovation work after the acquisition of the site by the Office of Works in 1882 (MacKie 2002, 93), though even in Dryden's survey a generation earlier the top levels in one sector are marked as 'new' (Dryden 1874, pl. XX). Furthermore, the pronounced rebate in the external wall on the north-north-east is not shown on Dryden's plans and suggests some substantial later reconstruction. Both upper entrances at first-floor level, however, on the north and north-east side are shown in Dryden's earlier plans and elevations. Hamilton (1983, 20) evidently believed that they were original and used by the broch-builders to facilitate the construction of the tower. Neither additional first-floor doorways shows any obvious signs of secondary construction, but elsewhere in Atlantic Scotland it is clear that stonemasons were capable of effecting such alterations whilst skilfully bonding in the reworked stone without leaving crude breaks in coursing. MacKie (2002, 95) argued that there was evidence of secondary alteration at the foot of the intramural stair and in



Fig. 5a—Clickhimin, Shetland: the main broch entrance is to the left. The staircase is accessed from the passage leading from the modern wooden steps to an upper outer entrance at first-floor level.



Fig. 5b—Clickhimin, Shetland: external structures north-west of the broch tower—late Bronze Age farmstead or post-broch cellular ‘shamrock’?

the vestibule passage, and attributed the additional entrance to the secondary occupation of the broch. Additional entrances, though rare, are not unknown in Atlantic Scotland, in Caithness and in Skye and not least at Old Scatness in Shetland, though these are generally at ground level rather than raised to first-floor level as at Clickhimin. Since so few brochs survive to a sufficient height around their entire circuit to confirm or refute the presence of a raised entrance, this feature could have been more widespread than existing survivals suggests. If indeed either were original, this would underline the fact that the main occupation level of brochs was at first-floor level or above. Nevertheless, the very low height of the passages, though not so much lower than the main entrance, would surely have impeded the use of these additional entrances as a regular means of access. Access from the outside was presumably meant to be difficult, as in the later round towers of Ireland, though a simple wooden staircase could have served in normal circumstances.

In the light of the site's long and complex building history it is remarkable that the supposedly late Bronze Age 'farmstead' should have survived so close to the north-west side of the broch (Fig. 5b). The dating of this cellular building was inferred not so much from any diagnostic associated finds but from its apparent similarity in plan to the cluster of courtyard structures at Jarlshof (Hamilton 1956), from which undoubted late Bronze Age material included fragments of moulds for weapons, tools and ornaments. Dryden's survey had certainly shown structures around the west side of the broch, though not exactly to the same plan as the present layout, and it seems possible that here too the structures have benefited from renovation. Rather than being a remarkable survival from the late Bronze Age, however, it seems more likely that this extensive complex of nebulous structures represents post-broch, cellular occupation. In fact, it most closely resembles the layout of the 'shamrock' cellular structures of the post-broch phases at Gurness and elsewhere in Atlantic Scotland. In the light of more recent research, post-broch cellular construction can anyway be seen as a continuing tradition from earlier prehistoric origins (Harding 2004, fig. 5.12).

What the secondary structures within the Shetland brochs show is that the simplistic equation of radial plans with single-storey wheelhouses obscures the variety of structures that incorporate the principle of radial division of space. That concept is not unique to wheelhouses, though it is in that building type that it develops its most distinctive

architectural features. Complex Atlantic roundhouses from the earliest period occasionally display evidence of the radial division of peripheral space, as at Bu and elsewhere on Orkney, suggesting that the social use of space, especially the contrast between central space and peripheral space, transcended periodic fashions in structural morphology. It now seems increasingly certain that the ground floor of a broch tower was not the focal point of occupation within the building but served as a basement, as Captain Thomas (1890) recognised more than a century ago. If cattle, sheep or pigs were brought into the building they would have been kept at ground-floor level, perhaps in stalls defined by radial partitions, contributing by their presence to the heating of the upper living floors. The introduction of radial piers into brochs in their secondary phases of occupation is therefore not the result of trying to build a single-storeyed wheelhouse within the derelict and still possibly quite high and deteriorating shell of the broch tower, but the consolidation of this radial division of the basement in a fashion that provided additional support for the main floor above. How far upper floors, mezzanines or galleries were maintained will have varied according to circumstance. Conversely, where structural instability or other exigencies demanded the reduction of the broch to a much lower level, then a single-storeyed roundhouse or wheelhouse might well have been built within its truncated shell. In such circumstances needs of space might well have been met by lateral expansion to create an external 'village' settlement.

The fact that broch sites, notably those in Orkney and Shetland, underwent so many successive, even if intermittent, phases of secondary occupation indicates the compelling attraction of the broch sites as focal points for community identity. But it is hardly surprising that there should be diversity in the character of secondary occupation. Though there is undoubtedly a body of evidence to suggest that some brochs were substantially dismantled or reduced in height in the opening centuries AD, there is no reason to suppose that this was a uniform pattern across Atlantic Scotland, or that there was any systematic and coordinated reaction against monumentality. Dismantling may reflect a common response to common social or economic changes, perhaps, as Armit has argued (2005), triggered by factors linked to traditions of inheritance. In some cases like Howe, reduction of the broch tower may have been triggered by actual structural collapse or threat of collapse. Some sites like Gurness may have been reduced as part of a systematic realignment of the settlement into a broch 'village'. In other cases the broch tower may have

survived much longer, to be reused intermittently after a period or periods of abandonment, or seasonally as a focal point in the community's agricultural or pastoral cycle. Mousa seems an improbable location for uses other than as summer pasture, though there was doubtless a strategic element in its siting overlooking Mousa Sound. The fact that the broch's economy or social role has seldom been discussed is a reflection on the architectural bias of the archaeological agenda. Its exceptional nature architecturally has long been recognised, and doubtless the same was true of its function and social significance. In fact, one lesson that should be learned from broch studies over the past 30 years is that the word 'typical' should be expelled from the archaeological vocabulary.

References

- Anderson, J. 1874 Notice of the excavation of the brochs of Yarhouse, Brounaben, Bowermadden, Old Stirkoke, and Dunbeath in Caithness; with remarks on the period of the brochs . . . *Archaeologia Scotica* V, Part 1, 131–98.
- Armit, I. 1988 Broch landscapes in the Western Isles. *Scottish Archaeological Review* 5, 78–86.
- Armit, I. 1991 The Atlantic Scottish Iron Age: five levels of chronology. *Proceedings of the Society of Antiquaries of Scotland* 121, 181–214.
- Armit, I. 2003 *Towers in the north: the brochs of Scotland*. Stroud. Tempus.
- Armit, I. 2005 Land-holding and inheritance in the Atlantic Scottish Iron Age. In V. Turner, R. Nicholson, S. Dockrill and J. Bond (eds), *Tall stories? Two millennia of brochs*, 129–43. Lerwick. Shetland Amenity Trust.
- Caulfield, S. 1981 Some Celtic problems in the Irish Iron Age. In D. Ó Corráin (ed.), *Irish antiquity: essays and studies presented to Professor M. J. O'Kelly*, 205–15. Cork. Tower Books.
- Church, M. 2002 The archaeological and archaeobotanical implications of a destruction layer in Dun Bharabhat, Lewis. In B. B. Smith and I. Banks (eds), *In the shadow of the brochs: the Iron Age in Scotland*, 67–75. Stroud. Tempus.
- Cotter, C. 1999 Western Stone Forts Project: Cahercommaun Fort, Co. Clare—a reassessment of its cultural context. *Discovery Programme Reports* 5, 41–95.
- Dockrill, S., Bond, J. and Batt, C. 2005 Old Scatness: the first millennium AD. In V. Turner, R. Nicholson, S. Dockrill and J. Bond (eds), *Tall stories? Two millennia of brochs*, 52–65. Lerwick. Shetland Amenity Trust.
- Dockrill, S., Outram, Z. and Batt, C. 2006 Time and place: a new chronology for the origin of the broch based upon the scientific dating programme at the Old Scatness Broch, Shetland. *Proceedings of the Society of Antiquaries of Scotland* 136, 89–110.
- Dryden, Sir H. 1874 Notes on the brochs or Pictish towers of Mousa, Clickemin, &c, in Shetland, illustrative of part of the series of plans and sections deposited in the Library of the Society. *Archaeologia Scotica* V, Part 1, 199–212.
- Fojut, N. 1981 Is Mousa a broch? *Proceedings of the Society of Antiquaries of Scotland* 111, 220–8.
- Gilmour, S.M.D. 2000a Later prehistoric and early historic settlement archaeology of the western seaways. Unpublished Ph.D thesis, University of Edinburgh.
- Gilmour, S.M.D. 2000b First millennia settlement development in the Atlantic west. In J. Henderson (ed.), *The prehistory and early history of Atlantic Europe*, 155–70. British Archaeological Reports, International Series 861. Oxford.
- Hamilton, J.R.C. 1956 *Excavations at Jarlshof, Shetland*. Edinburgh. HMSO.
- Hamilton, J.R.C. 1968 *Excavations at Clickhimin, Shetland*. Edinburgh. HMSO.
- Hamilton, J.R.C. 1983 *The Brochs of Mousa and Clickhimin* (2nd edn). Edinburgh. HMSO.
- Harding, D.W. 1997 Forts, brochs, duns, crannogs: Iron Age settlements in Argyll. In G. Ritchie (ed.), *The archaeology of Argyll*, 118–40. Edinburgh University Press.
- Harding, D.W. 2000 *The Hebridean Iron Age: twenty years' research*. Department of Archaeology, Edinburgh University.
- Harding, D.W. 2004 *The Iron Age in northern Britain: Celts and Romans, natives and invaders*. London. Routledge.
- Harding, D.W. and Dixon, T.N. 2000 *Dun Bharabhat, Cnìp: an Iron Age settlement in West Lewis, Vol. 1. Structures and material culture*. Calanais Research Series 2. Department of Archaeology, Edinburgh University.
- Harding, D.W. and Gilmour, S.M.D. 2000 *The Iron Age settlement at Beirgh, Riof, Isle of Lewis: excavations 1985–95, Vol. 1. The structures and stratigraphy*. Calanais Research Series 1. Department of Archaeology, Edinburgh University.
- Hedges, J. 1987 *Bu, Gurness and the brochs of Orkney, part*

- II: Gurness*. British Archaeological Reports, British Series 164. Oxford.
- Hencken, H. O'N. 1938 *Cahercommaun: a stone fort in County Clare*. Dublin. Royal Society of Antiquaries of Ireland.
- Henderson, J. 2000 Shared traditions? The drystone settlement records of Atlantic Scotland and Ireland 700 BC–AD 200. In J. Henderson (ed.), *The prehistory and early history of Atlantic Europe*, 117–54. British Archaeological Reports, International Series 861. Oxford.
- Joass, J.M. 1874 The brochs, or 'Pictish towers' of Cinn-Trolla, Carn-Liath, and Craig-Carrill, in Sutherland, with notes on other northern brochs. *Archaeologia Scotica* V, Part 1, 95–130.
- Lane, A. 1990 Hebridean pottery: problems of definition, chronology, presence and absence. In I. Armit (ed.), *Beyond the brochs: changing perspectives on the later Iron Age in Atlantic Scotland*, 131–42. Edinburgh University Press.
- MacKie, E.W. 1974 *Dun Mor Vul, an Iron Age broch on Tiree*. University of Glasgow Press.
- MacKie, E.W. 1994 Midhowe and Gurness brochs in Orkney; some problems of misinterpretation. *Archaeological Journal* 151, 98–157.
- MacKie, E.W. 1997 Dun Mor Vul revisited: fact and theory in the reappraisal of the Scottish Atlantic Iron Age. In G. Ritchie (ed.), *The archaeology of Argyll*, 141–80. Edinburgh University Press.
- MacKie, E.W. 2002 *The roundhouses, brochs and wheelhouses of Atlantic Scotland c. 700 BC–AD 500: architecture and material culture. Part 1. The Orkney and Shetland Isles*. British Archaeological Reports, British Series 342. Oxford.
- MacKie, E.W. 2005 Scottish brochs at the start of the new millennium. In V. Turner, R. Nicholson, S. Dockrill and J. Bond (eds), *Tall stories? Two millennia of brochs*, 11–31. Lerwick. Shetland Amenity Trust.
- Miket, R. and Burgess, C. (eds) 1984 *Between and beyond the walls: essays on the prehistory and history of northern Britain in honour of George Jobey*. Edinburgh. John Donald.
- Parker Pearson, M. and Sharples, N. 1999 *Between land and sea: excavations at Dun Vulan, South Uist*. Sheffield Academic Press.
- Raftery, B. 1972 Irish hill-forts. In C. Thomas (ed.), *The Iron Age in the Irish Sea province*, 37–58. CBA Research Report 9. London. Council for British Archaeology.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London. Thames and Hudson.
- RCAHMS 1946 *Twelfth report with an inventory of the ancient monuments of Orkney and Shetland. Volume III. Inventory of Shetland*. Edinburgh. HMSO.
- Smith, B.B. (ed.) 1994 *Howe: four millennia of Orkney prehistory*. Edinburgh. Society of Antiquaries of Scotland.
- Stell, G. and Harman, M. 1988 *Buildings of St Kilda*. Edinburgh. Royal Commission on the Ancient and Historical Monuments of Scotland.
- Thomas, F.W.L. 1890 On the duns of the Outer Hebrides. *Archaeologia Scotica* V, Part 3, 365–415.
- Young, A. 1956 Excavations at Dun Cuier, Isle of Barra. *Proceedings of the Society of Antiquaries of Scotland* 89 (1955–6), 290–328.

Re-evaluation of a supposed inland promontory fort: Knoxspark, Co. Sligo—Iron Age fortress or Viking stronghold?

Eamonn P. Kelly

Introduction

During my period spent as an undergraduate in University College, Dublin, I knew Barry Raftery as a popular lecturer whom I appreciated not only for his scholarship but also for his dry sense of humour and laconic delivery. Later, from 1971 to 1975, I worked with Barry as an excavation assistant, surveyor and post-excavation assistant. This involved me in work over several excavation seasons at Rathgall hillfort, Co. Wicklow, as well as excavations at Killycluggan, Co. Cavan, and a burial mound at Baunogenasraid, Co. Carlow. Between excavations I assisted Barry in surveying possible hillfort enclosures throughout the country, including sites in Dublin, Wicklow, Cork, Tipperary, Mayo, Donegal and Meath.

Barry had been undertaking research into Irish hillforts since the 1960s, and his 1969 publication of Gerhard Bersu's excavation of the hillfort on Freestone Hill, Co. Kilkenny, placed a somewhat neglected monument type firmly before the attention of the archaeological community (Raftery 1969). Shortly afterwards, in 1972, Barry addressed many of the issues surrounding Irish hillforts in a paper that provided the first distribution map of Irish sites, together with a proposed typology of the known monuments (Raftery 1972). At that time, study of hillforts and related monuments seemed to offer the possibility of providing new insights into the Irish Iron Age, about which little was known for certain concerning settlement types and patterns, burial practices and artefact assemblages. The redressing of these deficiencies formed the core of Barry's research endeavours over subsequent decades.

In his 1972 paper Barry Raftery identified three main classes of inland monuments that could be included in the hillfort category. Class I comprised univallate monuments of earth or stone, class II were sites with widely spaced multivallate defences while class III were inland promontory forts, 'i.e. sites where the natural defences are such that artificial defences are only required along one side of a steep-sided plateau' (Raftery 1972, 47). The class III sites were fewer in number than the other two classes, but Raftery suggested that 'Since such sites are even more difficult to

detect on the ground than are even contour hill-forts it is probable that the few examples here referred to will be considerably added to through future field work' (Raftery 1972, 47). The discovery of such a site was proposed in 1994 when a steep-sided ridge, the end of which had been fortified by a bank and ditch, was excavated in the course of road-building at Knoxspark, Co. Sligo (Mount 1994b). The Knoxspark excavations appeared to provide evidence for substantial habitation and ritual activity on the site during the later Iron Age and early medieval periods.

Knoxspark, Co. Sligo

Investigation of the site revealed evidence for habitation as well as cremation and inhumation burials, some containing grave-goods. The excavator concluded that the monument was a promontory fort of Raftery's class III (Mount 2002, 113) and that 'Evidence indicates that the site at Knoxspark, Co. Sligo, was in use for more than 200 years and may span the Pagan/Early Christian Transition' (*ibid.*, 103). Decapitated remains found among the Knoxspark burials were proposed to relate to Iron Age ritual practices. According to the excavator, 'These decapitations appear to be indications of the Celtic cult of the severed head' (Mount 1994a, 23). Elsewhere, Barry Raftery was cited as an authority in order to demonstrate the importance of the human head in Irish Iron Age beliefs and to illustrate the practice of decapitating vanquished enemies and displaying their severed heads (Mount 2002, 114; Raftery 1994, 185).

The lateness of the dates obtained for the Knoxspark site seemed puzzling, however. All of the radiocarbon dates, including those that appeared to relate to the cremation burials, pointed towards a date in the early Viking period rather than the early Iron Age. Furthermore, the association of a gold and amber mount that may be from an eighth- to ninth-century penannular brooch or a reliquary (Mount 2002, 114), found within the same stratigraphical levels as a cremation burial, appeared to pose insurmountable problems for the interpretation of the site as a native Iron Age monument.



Fig. 1—Knoxspark, Co. Sligo, is located close to the Atlantic coast in the north-west of Ireland.

These problems raised doubts in the mind of the writer regarding the published interpretation of the site. Following examination of cartographical evidence and aerial photographs, the site was visited and examined in detail. This led to the conclusion that a major rampart, unidentified hitherto, had once protected an extensive area surrounding the fortification on the ridge. It seemed to the writer that earlier investigators had misunderstood and wrongly attributed the true character of the Knoxspark site as a consequence of not having identified this extensive outer rampart. Arising from this conclusion, it appeared that the defences on the ridge (the so-called promontory fort) were but a small part of a much larger monument.

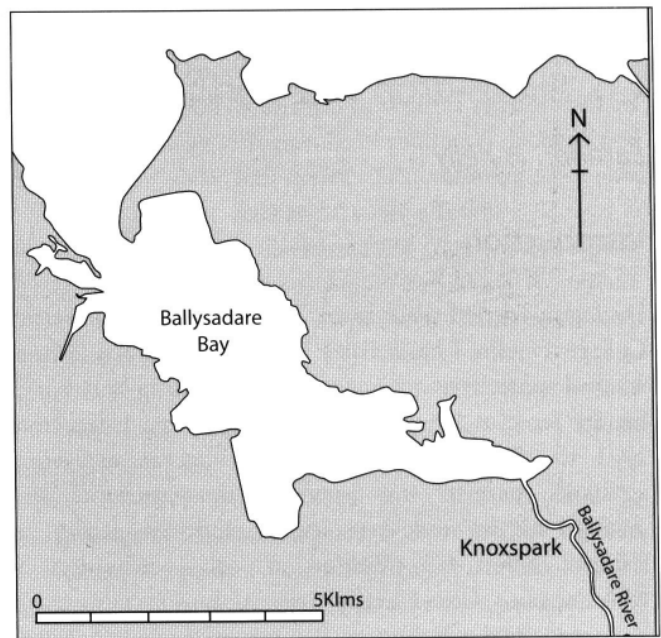


Fig. 2—The Knoxspark earthworks were constructed on the south bank of the Ballysadare River within an oxbow bend about 1km upstream from where the river flows into Ballysadare Bay.

Site location

The site is located on the south bank of the Ballysadare River about 1km from where the river enters Ballysadare Bay on the north-west coast of Ireland (Figs 1 and 2).

The main rampart

The newly recognised rampart originally cut off an area of land that lies within an oxbow bend of the Ballysadare River (Fig. 3). The rampart was interfered with by railway-building in the nineteenth century (and by road construction in the 1990s), but the south-eastern extremity (located between the modern road and the river) has survived (Fig. 4). The approximate line of the complete ditch prior to railway construction is indicated by the Ordnance Survey first edition map (Fig. 5). From an examination of the surviving stretch, which is up to 2m deep (Fig. 6), it appears that the ditch was at least 6m wide and there was probably a substantial bank inside it. The rampart was curved and ran for a length of almost 460m, enclosing an area that measures 415m east-west and 265m north-south.

When the newly identified rampart is taken into

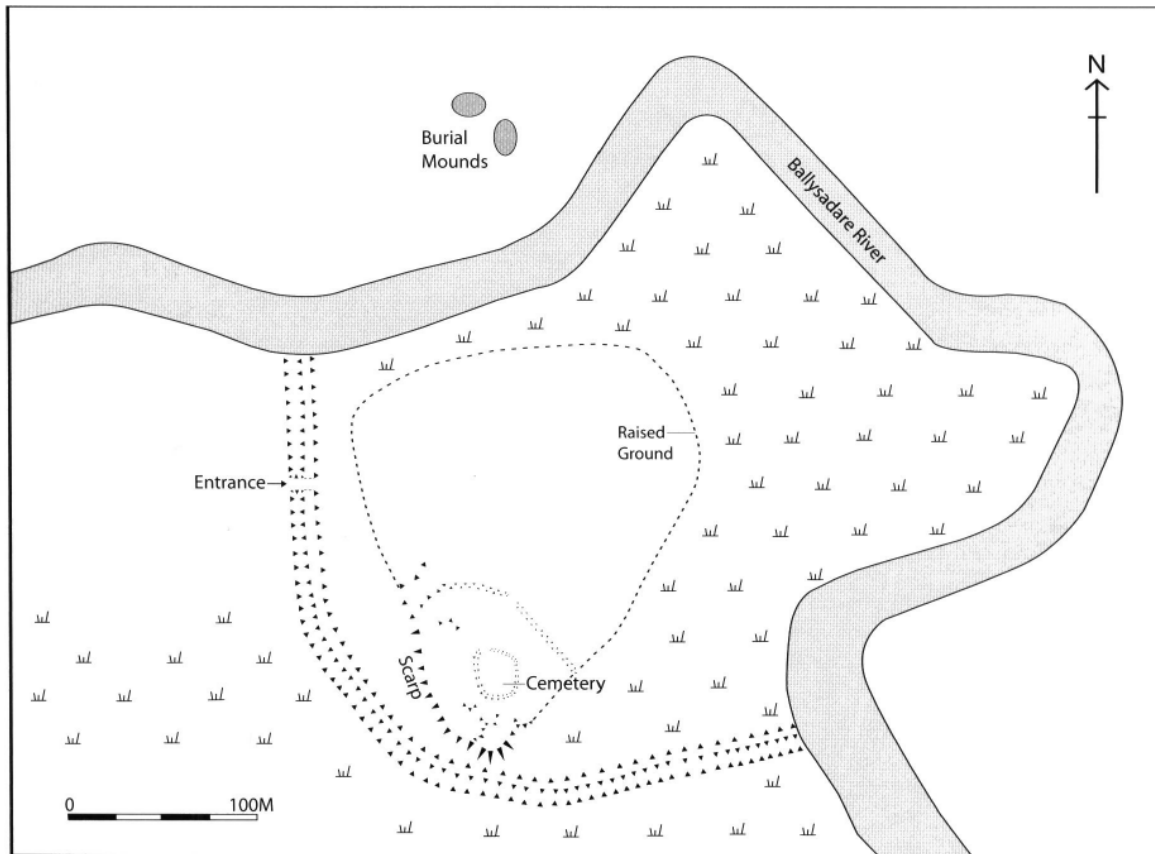


Fig. 3—The Knoxspark *longphort*. (The reconstructed plan of the main rampart shown here is based on cartographical sources, field observations and the evidence of aerial photography. The plan of the citadel is based on Mount 2002, fig. 3, while the location and extent of the burial mounds on the north bank of the river are based on Channing and Opie 1995, fig. 1, and Channing and Opie 1996, fig. 1.)

account and the monument is then compared with other known sites, a new interpretation becomes possible. Knoxspark may be another Irish example of a Viking *longphort* (Maas 2008; Sheehan 2008), and it is hoped to demonstrate that this interpretation is wholly in keeping with the known archaeological and historical evidence.

The marsh

Low-lying parts of the area enclosed by the main rampart are marshy, and the site is protected to the south and south-west by extensive tracts of marsh (Fig. 3) (Mount 2002, 104). The land due west of the site flanking the river appears to have consisted of more easily traversed dry ground, which, without the construction of the main defensive rampart, would have posed an obvious security hazard for the

inhabitants of the site. It may be that there was an entrance feature through the ramparts in that area, but if such existed it appears to have been destroyed by railway construction (compare Figs 4 and 5).

The citadel

It is proposed here that the monument identified by Charles Mount as a promontory fort (Fig. 7) is better interpreted as a strong point or citadel located within a much larger monument (a *longphort*). Within the loop of the Ballysadare River there was originally a low ridge running north-east/south-west, reaching a maximum elevation of 4m above the surrounding flat marshland. The entire ridge lay within the D-shaped area that later came to be enclosed by the main rampart (and the river). Separated by a slight dip towards the

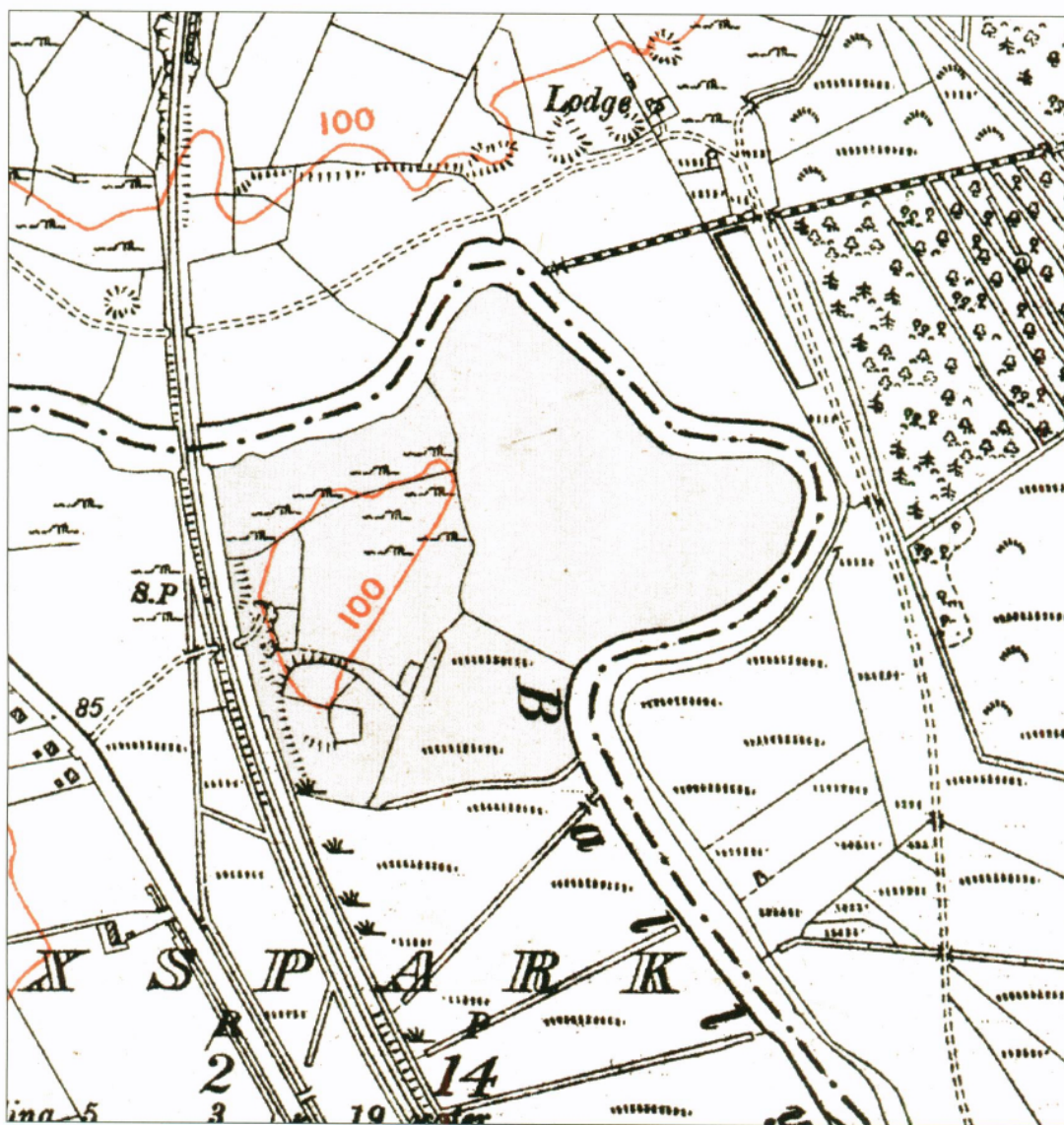


Fig. 4—Ordnance Survey 6in. sheet no. 20 shows a surviving stretch of the main rampart as it joins the river, but the building of a railway during the nineteenth century seemingly destroyed most of the rest of the original rampart. The earthworks of the citadel are also roughly shown on the map, which was revised in 1910, published in 1913 and reprinted in 1935.

middle, there were two elevated parts of the ridge, of which that at the south-western end was 1m higher in elevation. A rampart was constructed to protect the elevated south-western end of the ridge, consisting of a curved ditch extending in an arc across the ridge, with a central entrance causeway. The ditch averaged around 4m in width and was up to 2.08m deep. The ditch profile was steeper on the inner side and a stone-faced earthen bank flanked it originally. A counterscarp bank may have flanked the outside edge of the ditch. Animal bone from the ditch yielded radiocarbon dates

of 1260 ± 40 BP (GrA-2452; cal. AD 660–880, 2σ) and 1190 ± 40 BP (GrA-2454; cal. AD 690–960, 2σ) (Mount 2002, 106).

Cemetery

Within the area of the citadel a considerable cemetery developed that was enclosed eventually by a wall (Fig. 7). Subrectangular in form, the cemetery enclosure measured

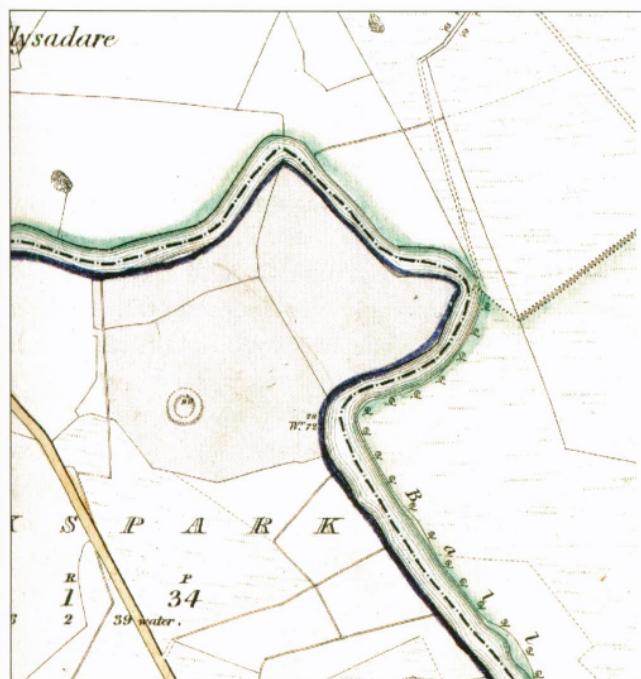


Fig. 5—The original line of the main rampart is detectable in the field boundaries shown on the first edition OS 6in. map (sheet 20, surveyed 1836–7, engraved 1837).

23m by 19m, the long axis lying north–south, with a west-facing entrance (Mount 1994a, 23). In the central area there was a setting of large stones aligned east–west, which the excavator designated as the east and west cairns (Mount 2002, 107). No plans of the cairns have been published so it is difficult to interpret the excavator's descriptions of the features. The two cairns were linked by an enigmatic arrangement of boulders on the northern side which measured 6m in length.

The 'east cairn' measured 4.5m by 4.2m and was less than 1m high. It appears to have been built on a habitation layer containing iron, iron slag, fragments of a possible silver object, animal bones and a number of seed deposits. The habitation layer yielded a radiocarbon date of 1240 ± 40 BP (GrA-2456; cal. AD 680–880, 2σ). Within the 'cairn' material there was a deposit of cremated human bones and some animal bones. No inhumation burials were found beneath the 'east cairn', suggesting that the cremation deposit was the earliest burial in the cemetery. An associated animal bone was used to date the cremation deposit and this yielded a date of 1180 ± 40 BP (GrA-1455; cal. AD 720–970, 2σ). Items discovered in the same context as the

cremation deposit included 'chert, iron implements (mainly nails and possible portions of pins), a fragmentary annular bead, a copper tag, flint and fragments of animal bone'. Also found was an early medieval Irish gold and amber mount of exceptional quality (Mount 2002, 107).

The 'west cairn' measured 3.2m by 3m and had a maximum height of 40cm. The 'cairn' material consisted of large stones and brown humus that 'contained quartz flakes, animal bone, iron and iron slag'. Beneath this was a layer of dark brown humus containing charcoal and burnt clay, as well as animal bones, 'iron implements, iron slag and flint'. Beneath this layer there was an area of burning interpreted as a possible metal-working area, an inhumation burial and other features that appear not to have been excavated fully. A curving trench appears to have contained slag and large quantities of cremated bone (Mount 2002, 107–8). The recent identification of a possible Viking ship setting at Treanbeg, Co. Mayo, may indicate the presence of a related Viking burial monument in the west of Ireland (Walsh 2007).

Possible ship or boat burial

There is a strong possibility that the cemetery enclosure was centred on a ship or boat burial. Within a deep layer of light sandy brown soil with many stones was found 'animal bone, iron artefacts and smelting slag' (Mount 2002, 107). According to the published report, 'Many nails were recovered in the upper part of this horizon, mainly above the level of the burials. These were in curving linear rather than random arrangements and may mark the decayed walls of structures' (*ibid.*). It is possible that the structure in question was part of a boat or ship, and study of the nails may indicate whether that was the case. Viking ship nails—or, more correctly, rivets—and their associated roves are distinctive and may be recognised easily.

Inhumation burials

The inhumation burials were of crouched, flexed and extended remains, in most cases lying roughly west–east with the head to the west. A minimum of 187 individuals was reported to be represented, and detailed study of the remains may reveal the presence of additional individuals. Not all the cemetery was excavated, and it is probable that a

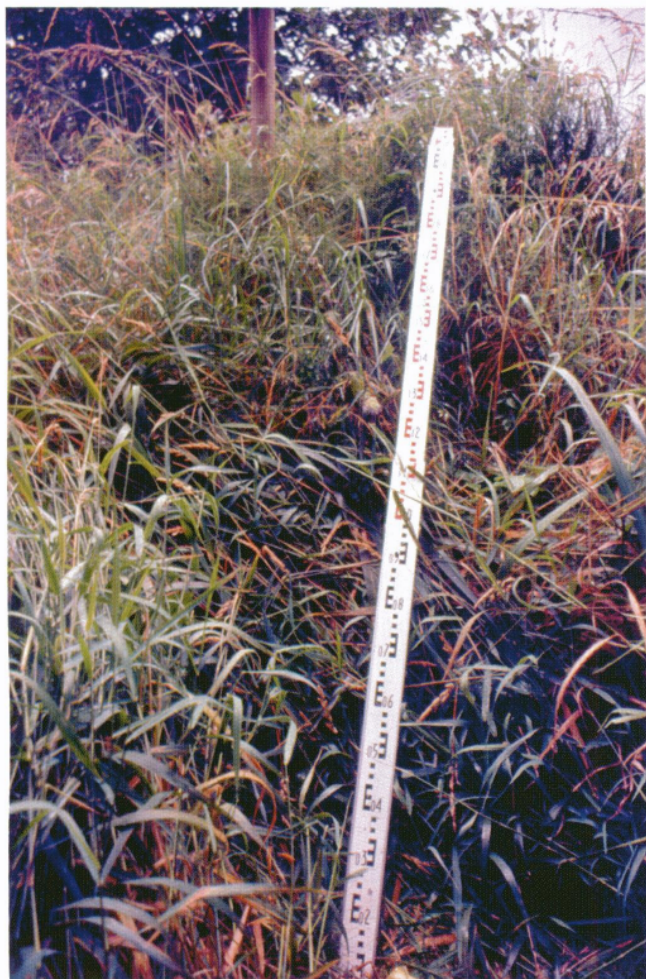


Fig. 6—Photograph taken while standing at the bottom of the surviving stretch of the main rampart ditch. Although the ditch appears to have been redug and modified to serve as a field drain, the evidence suggests that a rampart of impressive proportions protected the site originally.

considerable number of additional undisturbed graves are present on the site. Burial seems to have taken place over an extended period, and earlier graves were cut by later interments (Mount 2002, 108–11).

Grave-goods

Iron slag was found in three inhumation graves (nos 2, 45 and 90) (Mount 1994b, 16–29), although this may represent accidental inclusions in the grave fill. Animal bones were found in ten graves (27, 30, 47, 54, 56, 58, 62, 80, 84) and, while some fragments may represent accidental inclusions,

most appear to have been placed deliberately in the graves (*ibid.*). An adult buried in grave 30 was accompanied by a pair of animal teeth, probably of cattle, placed under the left side of the chin and by the right ear (*ibid.*, 20). Another adult burial (no. 80) contained a cattle mandible placed just above the right leg (*ibid.*, 27). The burial of a child (no. 27), which contained animal bone, also contained a small iron fragment of unspecified form (*ibid.*, 20), while an adult burial (no. 32) contained an unspecified bronze artefact found beneath the skeleton (*ibid.*, 20–1). Burial no. 4 was that of an adult male who had a socketed iron spearhead in his hand (*ibid.*, 16–17). He had been buried alongside a decapitated adult (no. 75), whose head (no. 24) had been placed separately in the double grave. It is also stated that among the burials associated with grave-goods was that of ‘an adult with a grooved hone stone’ (Mount 1994a, 23; 1994b, 76).

Decapitation

It is probably a significant fact that children are underrepresented in the burial population (Mount 2002, 113–14). Burials appear to be mainly of adults, many of whom were decapitated. No detailed report as to the gender of the skeletons has been published. Burials include individuals whose heads are missing, graves where decapitated heads were placed separately in the grave along with the body, and graves containing solely decapitated heads. There are group burials of individuals who appear to have died violent deaths. An adult female was interred with three children, two of whom were decapitated, and the head of one child was lying on the upper arm of the adult (Mount 1994a, 23).

Corn-drying kiln and house sites

A stone-built corn-drying kiln was excavated within the area of the citadel (Mount 2002, 112–13), and the superficial remains of three possible houses located within the citadel were noted and planned but were not excavated (*ibid.*, fig. 4, 105) (see Fig. 7).

Burial mounds

In 1995 and 1996 road-building operations on the opposite

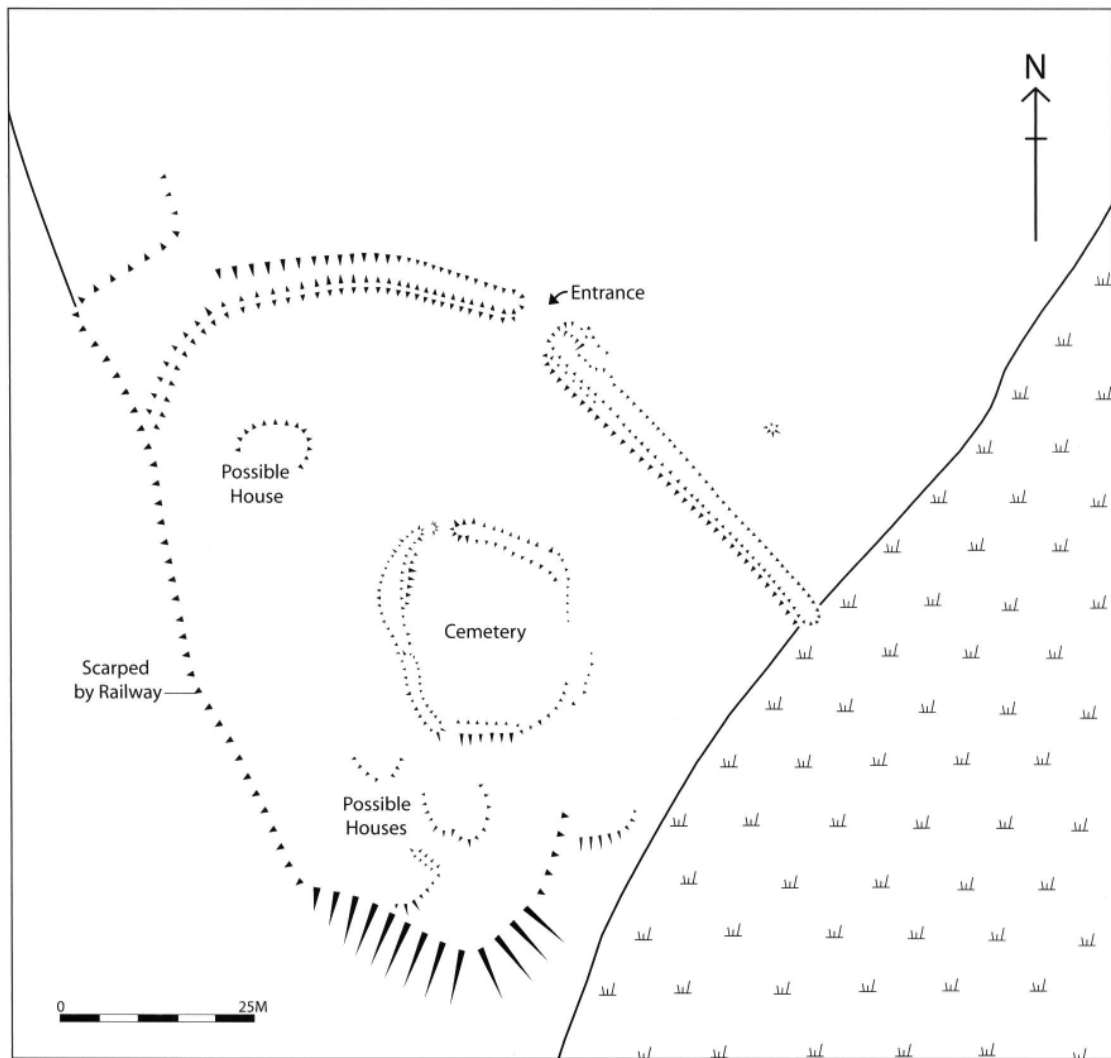


Fig. 7—Plan of the earthworks built on raised ground, which were identified by Charles Mount as a possible promontory fort (based on Mount 2002, fig. 3). It is proposed here that the earthworks once formed a citadel within a larger defensive structure—a *longphort*.

riverbank (to the north) uncovered two burial mounds, located within 15m of each other in Ballysadare townland, about 75m from the river (Fig. 3). The low oval mounds measured 19m by 12m and 20m by 15m respectively. The smaller mound contained 37 skeletons (Opie 1996, 77), of which only four were recovered for examination and analysis (Channing and Opie 1995, 14). Some of the graves extended into unexcavated areas, where it seems probable that other burials existed (*ibid.*, 15). One half of the larger mound was excavated and 83 burials were found (Channing and Opie 1996, 33).

In each of the mounds the same inhumation burial rite was practised, with the dead aligned roughly east–west, with

the heads to the west. In each of the mounds there was one exception to this practice, however, where one body was placed with the head to the east (Channing and Opie 1995, 15; 1996, 34). The graves in the mounds appear to represent individual burials, and there was no evidence of mass graves (Channing and Opie 1996, 34). In the smaller mound one skeleton (F17) was lacking its skull, but this may be the result of modern disturbance rather than ancient decapitation (Channing and Opie 1995, 11). All the burials noted in the small mound were of adults (*ibid.*, 16). Most burials in the large mound were of adults but there were a few children and babies (Channing and Opie 1996, 35). No information has been provided as to the relative numbers of

males and females present in either of the burial mounds, and no radiocarbon dates are available.

In the smaller mound, one of the dead was buried wearing 'an iron ribbon torque' with two hooked terminals, while a 'circular bronze ring' (max. diam. 1.75cm) was associated with a second burial (Opie 1996, 77). It was suggested tentatively that the ring may have come from a ringed pin (Channing and Opie 1995, 16) or that it may have been a belt-fitting to close a shroud (Opie 1996, 77). Animal bones and a lump of slag were found in the topsoil. In the larger mound single iron nails were reportedly found associated with extended burials F56 and F107 (Channing and Opie 1996, 12, 29), and other iron nails were found unrelated to the burials (*ibid.*, 33). Unstratified oyster shells were also present.

Locational factors

Knoxspark is located on the boundary between the ancient territories of the Ua hEghra and the Uí Aillello and in close proximity to the boundary of the territory of the Cenel Cairpri (Mount 2002, 104). An important routeway ran from west Ulster through Carbury and across the Ballysadare River near Knoxspark and continued into southern Connacht through the Collooney gap. Knoxspark dominated the important river crossings. River traffic travelling upstream from Ballysadare Bay, and land and water movement through the Collooney gap, could be controlled from the site (*ibid.*, 105).

Possible Viking coastal settlement along the maritime approaches to Knoxspark

At Truska, Co. Galway (Gibbons and Kelly 2003), and Beginish, Co. Kerry (Sheehan *et al.* 2001), Viking Age midden deposits were found to be associated with Viking-type houses located in proximity to landing beaches. Finds from the Sligo coast (and elsewhere) suggest that the same settlement pattern may be found along extensive stretches of the Atlantic coast of Ireland. At Streedagh, Co. Sligo, a plain piece of hack-silver was found which was rectangular in outline, measuring 2.1cm by 1.4cm (NMI 1988:175). It was cut from a sheet approximately 2mm thick. Rings for ringed pins have been found at nearby Conors Island (NMI 2004C2:312–313) and at Mullaghmore West (NMI

2004C2:4–5), while the stem of a bronze pin (NMI 1934:4216), two fragments of antler tine (NMI 1934:4221–4222) and human remains have been discovered at Raghly Point (NMI file IA/67/1994). At the entrance to Ballysadare Bay, which provides access by sea to Knoxspark, middens occur flanking landing beaches in the townlands of Carrowdough, Culleenamore and Strandhill. A Viking Age bone or antler comb of Dunlevy type F (Dunlevy 1988, 362–7), now in the Ulster Museum (A29.1991), was found in the dunes at Carrowdough (NMI file IA/109/1992). Along the north shore of Ballysadare Bay, in an area where middens occur at Woodpark, an undecorated lead weight was discovered (NMI 1978:189). Weighing 88.37g, it represents four units of the Scandinavian unit of weight (öre), which is a lighter unit than the one used subsequently by the Hiberno-Norse (P. Wallace, pers. comm.). The Woodpark weight may therefore be regarded as a Scandinavian Viking object of relatively early date. In the inner reaches of Ballysadare Bay, close to the estuary of the Ballysadare River, a notched and perforated antler tine (NMI 1970:7) was found in midden deposits in Kilboglashy, the townland immediately adjacent to Knoxspark. Numerous identical antler objects have been found in Viking levels in Dublin, Waterford, Cork and York (Hurley 1997, 681), as well as on native Irish sites, and it has been proposed that the objects were used to make fishing-line and the mesh for fishing-nets (Wood-Martin 1886, 80).

Kufic coin

The fragment of hack-silver from Streedagh and the Woodpark weight may be suggestive of seaborne trade during the Viking Age. The land route into mid-Connacht through the Collooney gap may also have carried Viking trade and commerce that originated at Knoxspark, and a fragment of a forged Kufic silver coin struck by the Volga Bulgars between AD 900 and 910, found at Carrowreilly, Co. Sligo, may represent evidence of this (Kenny 1991). The townland of Carrowreilly (about 14km from Knoxspark) straddles the modern N17 road that now runs through the Knoxspark *longphort*, passes through the Collooney gap and crosses central Connacht, via Tuam, linking Sligo with Galway and Limerick. Annalistic references seem to testify to the importance of the ancient routeway, as well as to Viking activity associated with it.

Annalistic references

According to the Annals of Inisfallen, the monastery on the island of Inishmurray, Co. Sligo, which was attacked in AD 795, features in the earliest reference to a Viking raid on Ireland (Mac Airt 1988, 119). Vikings attacked Inishmurray once more in AD 807 and burned the monastery (O'Donovan 1856, 413). In the succeeding decades the continuing presence of Vikings along the Connacht coast is confirmed by references in the Annals of the Four Masters to repeated attacks on the Conmaicni and the people of Umhall, located in coastal areas of the modern counties of Galway and Mayo respectively (*ibid.*, 419–21). A reference in the Annals of the Four Masters for the year 844, however, may have more direct connections with Knoxspark. The annals state that 'A battle was gained over the Connaughtmen by the foreigners, in which Riagan, son of Fergus; Mughron, son of Diarmaid; and Aedh, son of Catharnach, with many others, were slain' (*ibid.*, 471). In the same year is recorded what may have been a related event: 'The plundering of Cuil-moine [Collooney] by the fleet of the Cailli; and a fortnight's siege was laid to them by Cearbhall, son of Dunlaing, and they were afterwards dreadfully slaughtered' (*ibid.*, 471).

A later entry in the Fragmentary Annals of Ireland for the year AD 867 provides an account of an ambush by the Connachtmen of a party of Vikings under the leadership of two earls, Báirith and Háimar, who were travelling through central Connacht, destined for Limerick, most likely along the same route as that followed by the modern N17 road. The Connachtmen killed Háimar and many other Viking warriors, forcing Báirith and his surviving followers to abandon their plans to go to Limerick. Instead, they 'returned afterwards to the place from which they had come' (Radner 1978, 129).

Dunrally Fort, Co. Laois

In 1995, E. P. Kelly and J. Maas proposed that the Vikings' use of a type of defended settlement referred to in the annals by the term *longphort* could be authenticated archaeologically by the identification of actual monuments in the field. More specifically, the proposal was made in respect of Dunrally Fort, an earthwork on the River Barrow in County Laois, which it was claimed could be identified as *Longphort-Rothlaibh*, whose destruction on 9 September 862

is recorded in the Annals (O'Donovan 1856, 497; Radner 1978, 115; Kelly and Maas 1995). Significant features of Dunrally Fort included an outer rampart enclosing a large D-shaped area measuring 360m by 150m. Within this area there was a smaller oval earthwork, with an interior diameter of 52m, interpreted as the citadel of the *longphort*. Located on the bend of the River Barrow, where a tributary joined, the site was also protected by marshy ground. The construction of the site on the boundary between three native kingdoms (where it could exploit local rivalries) and its close proximity to a major crossing point on the River Barrow were also considered to be important locational factors (Kelly and Maas 1995).

Athlunkard

In 1998 a site with precisely similar features and locational factors (albeit smaller dimensions) was identified near Athlunkard, Co. Clare. Unlike Dunrally Fort, however, the Athlunkard earthwork had Viking Age artefacts associated with it (Kelly and O'Donovan 1998).

Woodstown

In 1999 an article was published that provided a greater overview than hitherto of the *longphort* question, together with more detailed information about the role played by Dunrally *longphort* in the activities of the Vikings in Ireland (Kelly and Maas 1999). The article proposed that Dunrally *longphort* must have been associated with another *longphort* in the Waterford Harbour area, located on a site different to that of Hiberno-Norse Waterford (*ibid.*, 133). It was implicit that the proposed *longphort* would share features in common with Dunrally in terms of its layout, scale and locational factors.

This proposal seemed prophetic when, in 2003, a site was discovered on the south bank of the River Nore at Woodstown, Co. Waterford, close to Waterford city. Excavation would subsequently reveal that this new site lay within a large D-shaped enclosure (Russell *et al.* 2007, figs 21–4), located where a tributary stream joined near a bend in the River Nore. The layout of roads leading down to both banks of the river suggests that Woodstown lay at a crossing point. Partly protected by marshy ground, the site lay on the ancient boundary between the territories of the Déisi

Muman and the Osraige. Comparisons with Dunrally and Athlunkard seemed compelling, but there was resistance to the acceptance of Woodstown as the site of yet another *longphort*. Based on radiocarbon dates, considerable debate centred on the proposal that the site had native Irish origins that pre-dated the arrival of the Vikings. Following a review of the radiocarbon evidence and re-examination of the artefactual assemblage this view now seems less tenable, whereas there is growing acceptance that Woodstown has Viking origins and that its monumental status is that of a *longphort* (*ibid.*, 86). Two other large D-shaped enclosures (at Ballaghkeeran, Co. Westmeath, and Rathmore, Co. Kerry) that are possible *longphort* sites are discussed by Sheehan (2008), while earthworks at Athlumney, Co. Meath, first investigated by the writer in 1976 (Kelly 1982–3), have been identified by Clinton as a possible *longphort*, sited at the confluence of the rivers Boyne and Blackwater (Clinton 2000, 387–8).

Discussion

The construction of Knoxspark on an oxbow loop of the Ballysadare River was a strategy similar to that of building where a tributary joins the main river. Both approaches limited the extent of rampart required to protect a large site. In every other aspect of its major features and locational factors there is remarkable consistency between Knoxspark and the other proposed *longphort* sites referred to above. Like Dunrally Fort and Woodstown, Knoxspark consisted of a large D-shaped enclosure located beside a bend on a navigable river, at a crossing point. Moreover, all three sites are protected by a marsh and are located on the boundaries between rival Irish kingdoms. A fourth site referred to earlier—Athlunkard—has characteristics precisely similar in every respect to those of Dunrally, Woodstown and Knoxspark, except for scale.

If, as is suggested here, it should prove to be correct that a ship burial was excavated at Knoxspark, then the Viking character of the site is surely placed beyond question. There appears to have been much evidence for iron-working at Knoxspark, and the presence of large numbers of nails in a number of areas would be consistent with the production of nails on site for building and repairing ships. Nails (or more correctly rivets) may also have come to be strewn around the site as a result of the recycling of ship's timbers, a practice well known from other Viking sites (Russell *et al.* 2007, 36).

Unfortunately, no description of the Knoxspark nails has been published so it is not possible to say whether or not they represent ship's rivets similar to what has been discovered at Woodstown (*ibid.*, 25).

Apart from the possible ship burial referred to earlier, Viking parallels for the rest of the burials at Knoxspark can also be demonstrated easily; indeed, the Knoxspark finds may be more typical of Viking burials in Scandinavia and Scotland than any Viking burials reported from Ireland previously. Two graves from the Viking cemetery at Islandbridge, Dublin, may be compared with inhumations uncovered in the Knoxspark cemetery (Harrison 2001, 73). The two Islandbridge burials in question contained animal remains only, in one case a cattle jawbone, similar to that found in burial 80 at Knoxspark, and in another case an ox and horse tooth, mirroring Knoxspark burial 30, where two carefully placed cattle teeth were found (Bøe 1940, 59–60, fig. 10). The species of animal represented in the other eight Knoxspark burials has yet to be published. The deposition in burials of animal bones, especially those of horses, is characteristic of Viking burials in Scandinavia and elsewhere (Sikora 2003–4), and although found in Kilmainham/Islandbridge and associated with Viking burials in the Cloghermore Cave, Co. Kerry (Connolly *et al.* 2005, 74–82), and Athlumney, Navan, Co. Meath (Wilde 1861, 573–4), the practice has been regarded as a rare occurrence in Ireland. The reinterpretation of the Knoxspark finds may change that perception somewhat.

As reported earlier, artefacts, including an iron spearhead, a hone and two unspecified objects, one of iron and the other of bronze, were found interred with four inhumation burials at Knoxspark. Unfortunately, no detailed descriptions or illustrations of the artefacts have yet been published, so, other than stating that such deposition is consistent with Viking burial practice, little more can be said about the matter. The Ballysadare burial mounds have also produced evidence consistent with Viking practice. The presence of a twisted torc of iron on one of the skeletons may indicate a Viking burial, as a number of Viking twisted neck-torcs (albeit of silver) are known from Ireland (Sheehan 2000, 36–7). A small bronze ring, perhaps from a ringed pin, found with a second mound burial may also fit easily into a Viking milieu. Located on the north bank of the river, these two burial mounds may be part of a grave-field associated with the proposed *longphort*. Unlike the Knoxspark cemetery, the burial mounds appear to contain individual burials only, and evidence of violence in the form

of decapitation is seemingly lacking. It may be that the mound burials are those of individuals who died naturally of disease or by accident, whereas many of the burials in the Knoxspark cemetery are in multiple graves that contained the remains of people who appear to have died violently, perhaps as a result of warfare. The widespread evidence from the Knoxspark cemetery for decapitation is in keeping with the many annalistic references to the practice during wars of the Viking Age in Ireland. The poignant remains described earlier of a decapitated female and children in a multiple grave, and the evidence for other mass graves, may indicate that a massacre took place at Knoxspark. Precisely such a massacre is referred to in the Annals entry for AD 844. It seems highly likely that the mysterious 'fleet of the Cailli', who were the victims of the massacre, had a fortification within which they were besieged for two weeks by Cearbhall, son of Dunlaing, king of Ossory. The proposed fortification in question may well have been the Knoxspark *longphort*, given its proximity to Collooney, which the Vikings had attacked earlier, provoking the retaliatory attack by Cearbhall.

It may be the case that the Viking attack on Collooney raised Cearbhall's concern about the proximity of a Viking *longphort* to the strategically important Collooney gap that provided access into central Connacht. Cearbhall, who in his later career took part in the destruction of Dunrally *longphort* in AD 862, was a king who had more than local ambitions (Kelly and Maas 1999, 129–36, 143–5), and the attack on Collooney by the 'fleet of the Cailli' may have been linked to another event in the same year when the Vikings defeated the Connachtmen in battle, an outcome that may in some way have threatened Cearbhall's political ambitions in the midlands. Despite the archaeological evidence suggesting that a massacre took place at Knoxspark, it may be that Viking activity continued at the site for some time afterwards. The doomed party of the earls Báirith and Háimar who set out in 867 on an overland journey to Limerick appear to have been travelling south along the mid-Connacht route that passes through Knoxspark and the Collooney gap. Their place of departure may therefore have been Knoxspark and, should this proposal prove correct, it was to Knoxspark that the survivors returned following a bloody ambush by the Connachtmen.

Had it been possible to demonstrate a predominance of males over females in the burial record at Knoxspark (and the Ballysadare mounds), it might also have proved possible to construe this as providing evidence of a predominantly

military function for the proposed *longphort*. It is to be regretted that we have insufficient data on the gender of those buried in the cemeteries to draw any such conclusion. Nevertheless, the reported underrepresentation of children at each of the burial locations is highly suggestive of the military character of Knoxspark.

Cremation burial was as popular as inhumation in Viking Norway but, apart from the Kilmainham/Islandbridge cemetery, the evidence for the practice in Ireland remains sparse (Harrison 2001, 74). Although it was common in Scandinavia and in Viking Scotland, the Viking practice of burial in mounds has been more difficult to demonstrate in Ireland. In the Western Isles such mounds may have been newly constructed or ancient mounds may have been reused (*ibid.*, 74). The small low cairns containing cremation deposits within the Knoxspark cemetery fit well into the known burial practices of the Vikings but would be highly improbable in a native Irish context during the early medieval period to which the radiocarbon dates and associated finds assign the cairns.

The 'fragments of a possible silver object' found under the 'east cairn' may suggest the discovery of hack-silver on the site, which underlines the importance of obtaining fuller descriptive information about the finds. The discovery of a gold and amber Irish mount in the same mound as the silver fragments suggest comparisons with Woodstown, where both hack-silver and high-quality Irish metalwork were discovered (Russell *et al.* 2007, 34–6). Moreover, the discovery of hack-silver at Streedagh, together with the Woodpark weight and the Carrowreilly Kufic coin fragment, may suggest that Knoxspark was connected to commercial and trading activities in the general area. The other County Sligo coastal finds referred to may indicate that the sea routes leading to Knoxspark were secured by Viking settlers who controlled strategically important landing beaches and promontories.

Comment

The Iron Age has continued to prove elusive. Barry Raftery's excavations at Rathgall, Co. Wicklow, and the excavation of hillforts such as Mooghaun, Co. Clare, and Rahilly, Co. Galway, have established that these monuments are Bronze Age in origin. In the light of reassessment, the Iron Age component at Freestone Hill appears to be associated only with a small religious structure on the hill, whereas the

hillfort itself is seemingly much earlier in date, constructed during the Bronze Age (Ó Floinn 2000, 12–29). Redesignating Knoxspark as a Viking *longphort* rather than a native inland promontory fort removes yet another site from the list of presumed Iron Age monuments. However, other sites that fall within Raftery's Class III may yet provide firm evidence of Iron Age activity.

A study of significant unpublished excavations carried out recently by the Heritage Council accepted the Iron Age date proposed by Mount for Knoxspark and the site was earmarked as being of more than ordinary significance (Doyle *et al.* 2001, 8.2). The recent identification of the site as that of a Viking *longphort* elevates its importance to an even greater degree, as the site can now be seen to be not only of national but also of international significance.

Publication of a finds catalogue together with analysis and illustration of the artefacts from Knoxspark would prove to be of enormous interest. Illustrations and further details are also required to allow for comparison of the Knoxspark corn-drying kiln with Viking examples. A further programme of excavation should be considered to investigate the possible house sites and the main rampart ditch. Should the possible house sites prove on excavation to be in fact houses, they could provide much new information concerning the origins of the house types found on Viking urban sites in Ireland. A programme of isotope analysis of the people buried in the Knoxspark cemetery and Ballysadare burial mounds should be considered to help establish the ethnic and cultural background of those interred there.

References

- Bøe, J. 1940 *Norse antiquities in Ireland. Viking Antiquities in Great Britain and Ireland* (ed. H. Shetelig), vol. III. Oslo. H. Aschehoug & Co.
- Channing, J. and Opie, H. 1995 Archaeological excavations of a burial ground, Ballysadare, Co. Sligo, 95E020, April 1995. Unpublished report lodged with the National Museum of Ireland and the National Monuments Service, Department of the Environment, Heritage and Local Government.
- Channing, J. and Opie, H. 1996 Archaeological excavations of a burial ground during construction of the Ballysadare–Collooney Bypass, Co. Sligo, 95E020, Phase 2, November 1996. Unpublished report lodged with the National Museum of Ireland and the National Monuments Service, Department of the Environment, Heritage and Local Government.
- Clinton, M. 2000 Settlement dynamics in Co. Meath: the kingdom of Loegaire. *Peritia* 14, 372–405.
- Connolly, M. and Coyne, F. with Lynch, L.G. 2005 *Underworld: death and burial in Cloghermore Cave, Co. Kerry*. Bray. Wordwell.
- Doyle, I., Jennings, D. and MacDermott, J. with Challinor, D. and Lambrick, G. 2001 *Unpublished Excavations Survey 1930–1997*. Kilkenny. Oxford Archaeological Unit for the Heritage Council of Ireland.
- Dunlevy, M. 1988 A classification of early Irish combs. *Proceedings of the Royal Irish Academy* 88C, 341–422.
- Gibbons, E.K. and Kelly, E.P. 2003 A Viking Age farmstead in Connemara. *Archaeology Ireland* 17 (1), 28–32.
- Harrison, S. 2001 Viking graves and grave goods in Ireland. In A. C. Larsen (ed.), *The Vikings in Ireland*, 61–76. Roskilde. Viking Ship Museum.
- Hurley, M.F. 1997 Artefacts of skeletal material. In M. F. Hurley, O. M. B. Scully and S. W. J. McCutcheon, *Late Viking Age and medieval Waterford. Excavations 1986–1992*, 650–99. Waterford Corporation.
- Kelly, E.P. 1982–3 Recent investigations at Navan. *Riocht na Midhe: Records of the Meath Archaeological and Historical Society* 7 (2), 76–85.
- Kelly, E.P. and Maas, J. 1995 Vikings on the Barrow: Dunrally Fort, a possible Viking longphort in Co. Laois. *Archaeology Ireland* 9 (3), 30–2.
- Kelly, E.P. and Maas, J. 1999 The Vikings and the kingdom of Laois. In P. G. Lane and W. Nolan (eds), *Laois: history and society. Interdisciplinary essays on the history of an Irish county*, 123–59. Dublin. Geography Publications.
- Kelly, E.P. and O'Donovan, E. 1998 A Viking longphort near Athlunkard, Co. Clare. *Archaeology Ireland* 12 (4), 13–16.
- Kenny, M. 1991 A Kufic coin fragment from Carrowreilly, Co. Sligo. *Journal of the Galway Archaeological and Historical Society* 43, 170–3.
- Mac Airt, S. (ed.) 1988 *The Annals of Inisfallen (MS Rawlinson B. 503)*. Dublin. Institute for Advanced Studies.
- Maas, J. 2008 *Longphort, dún, and dúnad* in the Irish annals of the Viking period. *Peritia* 20, 257–75.
- Mount, C. 1994a From Knoxspark to Tír na nÓg. *Archaeology Ireland* 8 (3), 23–4.
- Mount, C. 1994b Excavations at Knoxspark, Co. Sligo,

- 1994, 94E060, preliminary report, September 1994. Unpublished report lodged with the National Museum of Ireland and the National Monuments Service, Department of the Environment, Heritage and Local Government.
- Mount, C. 2002 The promontory fort, inhumation cemetery and sub-rectangular enclosure at Knoxspark, Co. Sligo. In M. A. Timoney (ed.), *A celebration of Sligo. First essays for the Sligo Field Club*, 103–16. Sligo Field Club.
- O'Donovan, J. (ed.) 1856 *Annala Rioghachta Eireann. Annals of the Kingdom of Ireland, by the Four Masters, from the earliest period to the year 1616*, vol. 1. Dublin. Hodges, Smith and Co. [Reprinted by Éamonn de Burca for Edmund Bourke publisher, Castlebourke, 1998.]
- Ó Floinn, R. 2000 Freestone Hill, Co. Kilkenny: a reassessment. In A. P. Smyth (ed.), *Seanchas: studies in early and medieval Irish archaeology, history and literature in honour of Francis J. Byrne*, 12–29. Dublin. Four Courts Press.
- Opie, H. 1996 Ballysadare Burial-Ground. In I. Bennett (ed.), *Excavations 1995: summary accounts of archaeological excavations in Ireland*, 77. Bray. Wordwell.
- Radner, J.N. (ed.) 1978 *Fragmentary Annals of Ireland*. Dublin Institute for Advanced Studies.
- Raftery, B. 1969 Freestone Hill: an Iron Age hillfort and Bronze Age cairn. *Proceedings of the Royal Irish Academy* 68C, 1–108.
- Raftery, B. 1972 Irish hill-Forts. In C. Thomas (ed.), *The Iron Age in the Irish Sea province*, 37–58. CBA Research Report 9. London. Council for British Archaeology.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London. Thames and Hudson.
- Russell, I.R., Harrison, S.H, Nicholls, J., Kinsella, J., McNamara, S. and O'Hare, M. 2007 *Woodstown 6 Supplementary Research Project* (ed. S. H. Harrison). Drogheda. Archaeological Consultancy Services Ltd.
- Sheehan, J. 2000 Viking Age silver and gold from County Clare. In C. Ó Murchadha (ed.), *County Clare studies. Essays in memory of Gerald O'Connell, Seán Ó Murchadha, Thomas Coffey and Pat Flynn*, 30–41. Ennis. The Clare Archaeological and Historical Society.
- Sheehan, J. 2008 The longphort in Viking Age Ireland. *Acta Archaeologica* 79, 282–95.
- Sheehan, J., Stummann Hansen, S. and Ó Corráin, D. 2001 A Viking Age maritime haven: a reassessment of the island settlement at Beginish, Co. Kerry. *Journal of Irish Archaeology* 9, 93–119.
- Sikora, M. 2003–4 Diversity in Viking Age horse burial: a comparative study of Norway, Iceland, Scotland and Ireland. *Journal of Irish Archaeology* 12–13, 87–109.
- Walsh, B. 2007 A possible Viking ship setting at Treanbeg, Co. Mayo. *Journal of the Galway Archaeological and Historical Society* 59, 158–67.
- Wilde, W. 1861 *A descriptive catalogue of the antiquities of animal materials and bronze in the museum of the Royal Irish Academy*. Dublin.
- Wood-Martin, W.G. 1886 *The lake-dwellings of Ireland or ancient lacustrine habitations of Erin, commonly called crannogs*. Dublin. Hodges, Figgis and Co.

Some large hilltop and hill-slope stone enclosures in County Donegal

Brian Lacey

Introduction

Barry Raftery's 1972 paper on 'Irish hill-forts' was the first (and seemingly the only) dedicated attempt in print to look at that class of monument in a holistic context. The paper was originally prepared for a conference held in 1969. At that time—before any major excavation on such sites had taken place—it was generally thought that Irish hillforts belonged to the Iron Age, although Raftery was careful to point to the somewhat wider range of dating evidence then available. He also added a late note in press—reflecting the results of his own excavations at Rathgall, which had commenced in the meantime—showing an even wider date range from the late Bronze Age to the high Middle Ages. Although he recognised 'the difficulties of an unambiguous definition of what a hill-fort is', he nevertheless proposed that:

'In Ireland these monuments are seen to be extensive areas of land within one or more ramparts of earth or stone, defending, it must be assumed, rather than merely enclosing a hill-top or other strongly defensible natural position. The size, situation and magnitude of the defences of the hill-forts must denote centres of tribal rather than family significance. In most cases the hill-fort may be regarded as having had, primarily, a defensive function, though in some exceptional cases religious importance or significance as places of inauguration or assembly may have contributed paramount distinction. The exact use to which the enclosed area was put is a matter of conjecture. It seems probable that most of the hill-forts constituted settlements of quite considerable size, but there seems little, if any, evidence that they ever achieved the status of towns. In the writer's opinion they are hardly to be regarded as places of temporary refuge to be occupied only in time of danger . . .'

(Raftery 1972, 38–9)

Raftery went on to divide the monument type into three classes: class I, comprising 'simple univallate sites'; class II, 'sites with widely-spaced, multivallate defences' subdivided

into (a) 'hill-top' sites and (b) 'cliff-top' sites; and class III, 'inland promontory forts'. Although Raftery's classification has not been improved upon since then, what John Waddell called the 'hillfort problem' (1998, 354–8)—with regard to identification, dating and interpretation—has continued to complicate our fuller understanding of the range of large hilltop or hill-slope enclosures to be found in various parts of Ireland.

At the time when the fieldwork for the Donegal archaeological survey was undertaken, between June 1980 and May 1981, it was reckoned that there were three hillforts in the county, each of which—Glasbolie, Croaghan Hill and the outer enclosures of the Grianán of Aileach—had been mentioned in the 1972 paper by Raftery. As the survey proceeded, however, it became obvious that there were a number of large hilltop or hill-slope monuments which did not fit closely with any of Raftery's classifications or with what are more usually thought of as domestic-scale structures. For the purposes of the survey publication, therefore, a separate category was isolated, with the cautious and neutrally ambiguous label of Large Stone Enclosures (Lacy 1983, 116–18—distribution map fig. 59). On reflection, that label should have included some reference to the relatively higher altitude of the monuments concerned. The eleven sites included in the category were somewhat diverse in nature and it was not clear whether, in fact, they constituted a single type or were necessarily related to each other in any way. With the exception of the extraordinary Cashelnavan on the north-west side of the Barnesmore Gap, one of the principal ancient and modern routeways in Donegal, no plans of the monuments were published in the survey volume, hindering a fuller consideration of them by other commentators. In addition, as was the case with most of the other sites recorded in the survey and in accordance with current thinking at the time, little consideration was given to the broader landscape or historical contexts of the monuments; the primary intention was to describe the main physical features of the sites themselves. The main purpose of this paper, on the other hand, is to redress, as far as possible, those shortcomings and to try to draw some meaningful, if tentative, conclusions from the results.

The monuments

As the sites have already been described to some degree in the published survey, it is proposed here to refer mainly to additional details observed on subsequent visits; readers are, of course, also referred to the original descriptions (*ibid.*). The nine sites located on the Inishowen peninsula (nos 1–9) will be addressed as a group first, as, if nothing else, they have a clear geographical association. The headings for each site referred to below include: specific site name if available, townland name, and DoEHLG Record of Monuments and Places reference numbers (1995).

1. Doonmore (Balleeghan Lr) 4:31 [No plan or photo available]

Situated on the summit of the east/west-running Doonmore Hill (alt. 148m), which almost certainly takes its name (*Dún Mór*, 'Great Fort') from the monument, the site consists of an oval enclosure, 140m north-east/south-west by 46m south-east/north-west, defined by cliff drops and a single collapsed stone wall, with a possible entrance gap on the south. There are excellent views in all directions but the monument seems to face mainly towards the south. The site is located very strategically on the north side of and overlooking the narrow, level strip of land running between Malin and Culdaff that separates the Malin sub-peninsula from the rest of the Inishowen peninsula, anciently known as Mag Tóchair. Almost certainly the Malin area was itself an island (or virtually so) in the past, and the monument, therefore, could have acted as a defensive/monitoring

position for anyone approaching the sub-peninsula/island from the south. It also overlooks a number of sea landing-places, at Culdaff Bay to the east and Trawbreaga Bay to the west. It seems most probable that it formed part of the southern defences of the Malin sub-peninsula at some period.

2. (Ballymagan Upr and Lr and Clonbrosk) 29:20 [aerial photo, Fig. 1]

This slightly inland site consists of an area of raised rock outcrop, 32m north/south by 62m east/west, defined by a drop of 3m on the north side and elsewhere by a single collapsed stone wall. The site overlooks the surrounding rough hill slope. While the altitude of the monument is relatively low at only 70m, it commands an important strategic pass/route through the mountains from Buncrana on the western Lough Swilly coast of Inishowen, 2.5km to the south-west, to the important ecclesiastical site at Carndonagh and other parts of the north of the peninsula. It seems almost certain that the monument was built to monitor/defend that routeway.

3. Crockacashel Hill (Ballynarry) 29:17.01 [plan, Fig. 2]

A somewhat oval (incorrectly described as 'triangular' in Lacy 1983) area, 53m north/south by 37m east/west, defined by a collapsed single stone wall, surrounds one of the two summits of Crockacashel (*Cnoc a' Caiseal*, 'Hill of the Stone Fort') Hill. The surrounding hilltop is more or less level to the east but drops fairly steeply to the shore of Lough

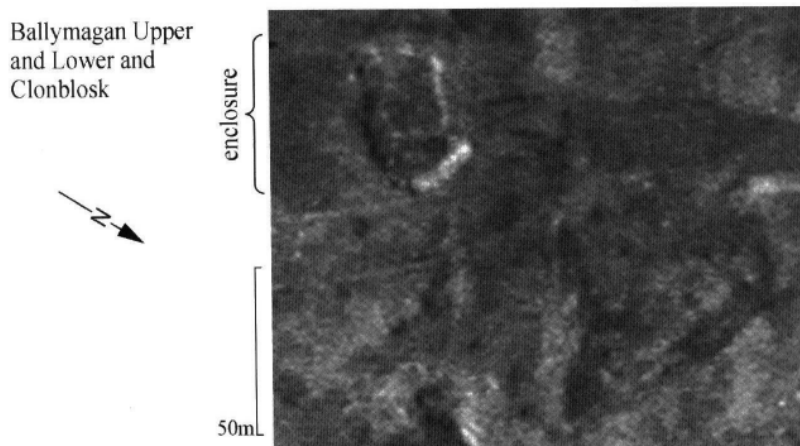


Fig. 1—Aerial photograph of enclosure at Ballymagan Upr and Lr and Clonbrosk in top left-hand corner (courtesy of the Air Corps).

Swilly, 100m below to the west. The site is on a prominent coastal hill to the north of Buncrana, 'guarding', as it were, the southern end of the routeway through the mountains mentioned in the note on the Ballymagan monument, No. 2 above. Intervisible with this monument along the coast is Dunree Head to the north-west and Caiseal na Bearnan (No. 9, below) to the south. Almost certainly all three of these sites were ancient coastal defences of some kind, although no relevant monument has been found at Dunree. The latter site has been part of an elaborate military installation for the past few centuries.

4. Crockaughrim Hill (Carrowmore and Cashel) 11:47 [plan, Fig. 2]

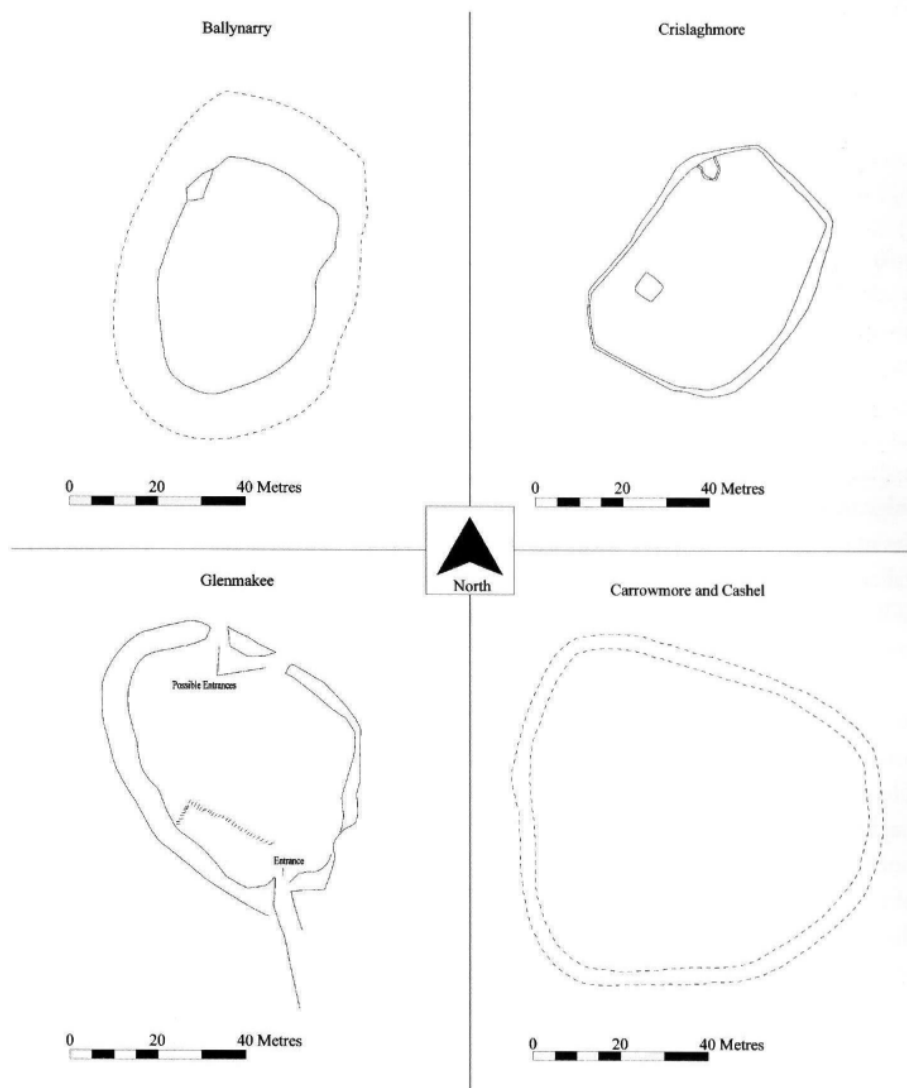
A roughly triangular area, 75m north/south by 85m east/west, defined by a single collapsed stone wall, lies in

rough terrain just south-west of the summit of Crockaughrim Hill at a height of 130m. The hill is in a prominent location near the centre (but on the southern side) of the plain (Mag Tóchuir) that runs across the top of Inishowen south of the Malin sub-peninsula. The monument commands wide views to the north, towards the important ecclesiastical site at Carndonagh to the west, and the route from the landing-places on Lough Foyle and Moville to the east. Views to the south are largely obstructed by higher hills and mountains.

5. Laghtnacooey? (Carrowmore or Glentogher) 20:10 [plan, Fig. 3]

An irregular-shaped (but tending towards oval) enclosure, c. 66.5m east/west by c. 43m north/south, defined by a collapsed stone wall, is situated on the summit of a rocky

Fig. 2—Enclosures at Ballynarry, Crislaghmore, Glenmakee, and Carrowmore and Cashel.



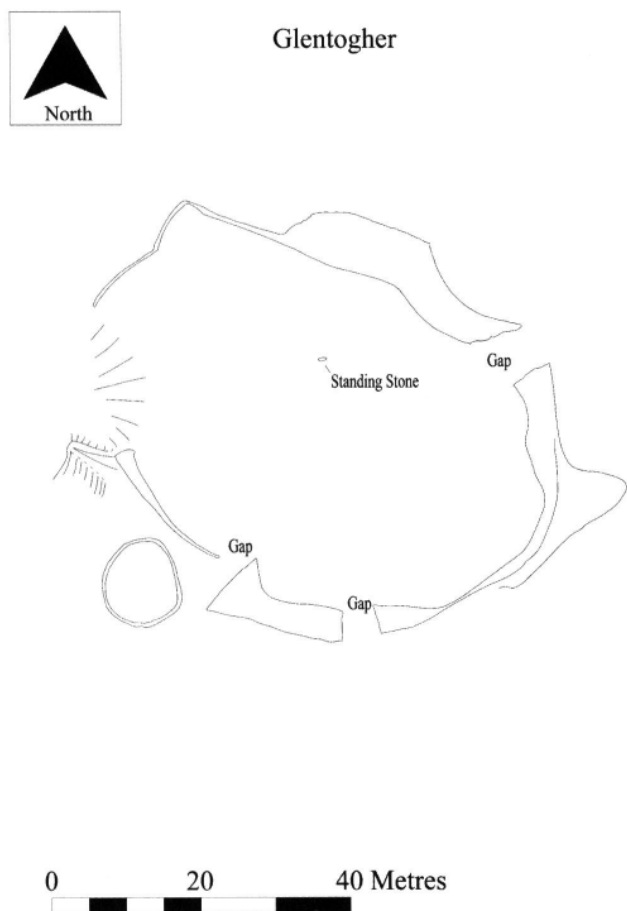


Fig. 3—Enclosure at Glentogher.

ridge, *c.* 0.8km long, *c.* 100m wide and *c.* 50m high, which lies in the centre but near the southern end of the Glentogher valley. There are four gaps (possible entrances?) in the wall. What appears as a standing stone, 0.65m in height, 0.85m in width and 0.3m in thickness, occurs near the centre of the enclosure, and in the north-west quadrant there is a recumbent slab, *c.* 1.7m by 1.5m by 0.8m, resting on two small stones which in turn lie on a partially submerged stone. The site was not marked on the OS 6in. sheets, but the name Laghtnacooey (*Leacht na Cumhaidh*, 'Slabstone of Loneliness?', or, less possibly, *Leacht na Cumaidh*, 'Slabstone of a social gathering'?—see Dinneen 1927, 294) is marked at that spot. Interestingly, in the 1930s Seán P. Ó Ríordáin (1935, 175) recorded that, until a generation before he wrote, the site had been used for the holding of fairs. The location would certainly have been appropriate as a community

assembly place, as it lies near the junction of several routeways and passes from different parts of the peninsula. High mountains rise on the eastern and western sides of the valley; effectively, this is the only pass going generally north to south through them. Glentogher (*Tóchar*, 'causeway') is the main route from the south to the important early ecclesiastical site of Carndonagh (*Domnach Mór Maige Tóchuir* in early medieval times), visible from the monument to the north-west, but the almost straight modern road through the valley splits and encircles the ridge on which the monument is located. A smaller subcircular feature, defined by individual stones, lies outside but on the same level as the main enclosure to the south-west; a wedge tomb (Lacy 1983, 39: no. 95) lies *c.* 20m east of the enclosure but *c.* 5m below it. Whatever about any other function it may have had, this enclosure lies at an extremely strategic point for the monitoring of anyone attempting to travel from the south towards Carndonagh and the surrounding area. It is hard to imagine that it did not have some sort of defensive capability.

6. Cashel? (Crislaghmore) 38:25.01 [plan, Fig. 2]

An irregular but almost rectangular (incorrectly described as 'sub-circular' in Lacy 1983) area, *c.* 55m by *c.* 40m, defined mainly by the 'foundations' of a much-robbed stone wall but in places by a low earthen bank. It is situated on the summit of Cashel Hill (height 190m), which is the lower western end of a continuous ridge of higher mountains/hills that effectively forms a natural defensive 'wall' running from south-west to north-east across the base of the Inishowen peninsula. Caiseal na Bearnan (see below) is visible *c.* 4.5km to the north-west. The site overlooks Lough Swilly and Inch Island to the west and faces the Grianán of Aileach 5km due south across the Pennyburn Depression valley—much of which has been reclaimed from the sea in recent times and other parts of which were also under water or were wetland in ancient times. This valley was a significant political boundary, at least between *c.* AD 500 and 800 (Lacey 2006, 105–13, 126, 130–1), with the Crislaghmore monument on one side of that boundary and the Grianán of Aileach site on the other.

7. (Glenmakee) 11:34 [plan, Fig. 2]

Situated on a small projecting spur on the north-western sloping side of Glenmakee Hill at an altitude of *c.* 100m is an irregular, but tending towards oval-shaped, enclosure, *c.*

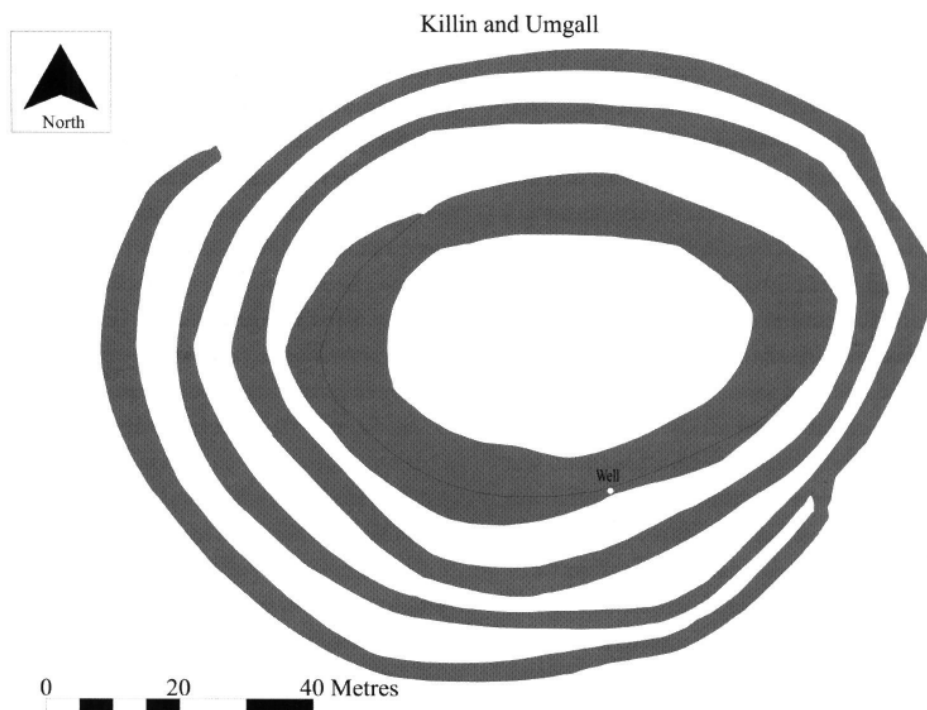


Fig. 4—Enclosure at Killin and Umgall.

60m north/south by c. 50m east/west, defined by a single collapsed and robbed stone wall. The possible second wall on the south side, previously suggested (Lacy 1983, 118), seems to be no more than the outer edge of the wall collapse. The bedrock is close to the surface and there has been quarrying on the eastern side of the monument. There appears to be a definite entrance on the south side. The interior is generally flat (although sloping towards the north), with the exception of a rectangular area of rock outcrop to the west of the 'entrance'. Externally, there is a slight slope on the east and a gradual slope to the south but steeper drops to the west and north. The location is of obvious strategic importance, with excellent views, especially to the west, north and east, over the ocean, Trawbreaga Bay, the Malin sub-peninsula and the plain across the north end of Inishowen (Mag Tóchair). The site faces across that plain to the monument on Crockraw Hill (No. 8 below), 8km due north across Trawbreaga Bay.

8. Crockraw? (Killin and Umgall) 4:9.01 [plan, Fig. 4]

Marked 'Castle Fort' on the 1903 OS 6in. sheet, this extraordinary monument consists of an almost perfect oval

enclosure, 55m by 30m, just south-east of and slightly below the summit of Crockraw Hill on the Malin sub-peninsula, at an altitude of c. 190m. Because of turf growth and stone collapse it is difficult to be sure, but it is possible that the site is defined by from three to five separate stone walls, which in places are as much as 40m across in total. In places level areas can be seen separating one wall from another, but elsewhere the distinct walls seem to merge into each other. The bedrock is close to and in places protrudes above the surface. There are sharp slopes to the west, south and south-east, but gentler slopes to the east and especially to the north. There are extensive views in all directions, but the horizon to the north-east is closed off by the high hills on the northern coast of the Malin sub-peninsula. A holy well dedicated to St Patrick (the patron of nearby Carndonagh) lies close to the inner wall on the south side. The location is of obvious strategic importance, overlooking the ocean to the west and Trawbreaga Bay and the plain across the north end of Inishowen (Mag Tóchair) to the south. The site faces across that plain to the monument on Glenmakee Hill (No. 7 above), 8km due south across Trawbreaga Bay, and Carndonagh, just to the east of the latter.

9. Caiseal na Bearnan (Lisfannon) 38:1.01 [plan in Somerville 1929, 165; reproduced in Lacey 2006, 113]

An irregular-shaped but tending towards triangular enclosure, c. 70m north/south by c. 30m east/west, defined by a collapsed single stone wall and on the eastern side by a cliff-edge, is situated on the summit of a high ridge (alt. c. 200m) rising above the shore of Lough Swilly to the west. The 'hut-circle' foundations noted by Somerville (1929, 164) in the south-east corner are not visible now. The latter also noted that the original entrance was on the north point but this does not seem likely to this observer. An alternative possibility is where two orthostats are positioned at the southern end. About 20m east and below the monument (in the *Bearnan* or Gap) there is a 'Friar's Grave' and a 'holy well', and then the land rises steeply again to the summit of Mouldy Hill (height 300m). The monument is located in an extremely strategic location, commanding extensive views over much of Lough Swilly and Inch Island, and of the Fanad peninsula across the lough to the west. It also commands the coastal route from the south to Buncrana and onwards to Carndonagh and the northern parts of Inishowen by way of the routeway mentioned in Nos 2 and 3 above. Both Ballynarry (No. 3 above) and Dunree are visible along the coast to the north-west, as are, to the south-east, the sites at Crislaghmore (No. 6 above) and the Grianán of Aileach.

10. Caiseal na bhFiann (Cashelnavean) 86.1 [plan in Lacy 1983, 117; reproduced in Lacey 2006, 42]

This monument consists of a subcircular area, 95m in diameter, defined by a collapsed stone wall, with several outcrops of rock in the interior. A gap on the north-western side was probably the entrance. It is located in a highly strategic position at an altitude of c. 210m on a slightly higher ridge, on the boggy hill slope of Croaghanierin (in the Bluestacks), on the northern side of the Barnesmore Gap, about 30m above and just west of the ancient/modern routeway that passes through the Gap. Its purpose was, undoubtedly, to monitor/oppose any movement northwards through the Gap.

11. (Killasteever and Scaddaman) 82:3 [Air Corps aerial photo reproduced in Lacey 2006, 85]

An irregular-shaped but tending towards triangular

enclosure, 61.5m north/south by 57.5m east/west, defined by a single collapsed and robbed stone wall. The interior undulates with some abrupt changes in level, but rises slightly towards the centre. It is situated at an altitude of 150m in a strategic location on a projecting spur on the northern side of the slope of Glengesh Hill. The latter forms part of the Slievetooley range that rises along the southern side of Loughros Beg Bay. Although situated in poor mountainous terrain, the monument overlooks the relatively good flat land on the Dawros Head peninsula to the north, with excellent views towards the north generally, including over the ocean to the north-west.

Conclusions

Nos 1 to 9 above are located at various points on the Inishowen peninsula; all of them appear to have had important strategic characteristics. Indeed, a strategic location is a common characteristic of all of the eleven sites described above. With the exception of No. 8 (which may have been a totally different type of monument), all the Inishowen monuments tend to be somewhat irregular in shape. Some seem to have combined sections of built wall with stretches of rock outcrop and/or cliff drops. Nos 1 and 2, and to a lesser extent No. 9, seem to have some of the characteristics of Raftery's 'inland promontory forts'. The site at Crockraw (No. 8), although now very seriously collapsed and degraded, stands out from all the others and appears to have been a totally man-made structure which, originally, may have had some parallels with the great cashel known as the Grianán of Aileach (Lacy 1983, 111–12), a little over 30km to the south. It has been suggested recently, based on historical contexts, that the latter cashel was built c. AD 800 (Lacey 2001, 148–9; 2006, 110–11, 324). No. 11, although at the extreme diagonally opposite end of the county (the direct distance between No. 11 and the nearest Inishowen site, No. 6, is approximately 80km), could be said to have parallels with a number of the Inishowen sites, especially Nos 4 and 9. Cashelnavean is an obvious exception to all the other sites described above in that it is an almost truly circular monument, but it shares with all of them a highly strategic location.

It is impossible, in the light of current knowledge and without excavation, to give a date for these structures. As has been pointed out already (Lacey 2006, 42–3, 83, 85 and 113–14), however, an interpretation of the purposes and

functions of all of them as defensive/monitoring structures can be accommodated without any difficulty into our understanding of the political and military geography of Donegal during the early medieval period (Lacy 1983, 118, fig. 59). Between the sixth century and the end of the eighth century AD, Donegal was dominated by the expansive dynastic kingdom known as Cenél Conaill. That polity originally lay to the south of Inishowen, which itself was occupied by the dynastic kingdom of Cenél nÉogain, the main political opposition to the Cenél Conaill. During the seventh century Cenél Conaill also conquered the Fanad Peninsula, across Lough Swilly to the west of Inishowen. It is noticeable that the distribution of these monuments in Inishowen (with the exception of two inland sites, Nos 2 and 5) is along the southern and western edges of the peninsula, precisely the areas most vulnerable to attack from the Cenél Conaill. Nos 2 and 5 command inland routeways from the south towards the north. The location of four of the sites at the northern end of the peninsula (Nos 1, 4, 7 and 8) seems to be obviously related to the plain of Mag Tóchuir below and between them.

The isolated site of Cashelnavean dominates an inland route through the Barnesmore Gap which has always been of immense strategic importance in Donegal. The other isolated site at Killasteever and Scaddaman was also of major strategic importance and may have been the location of, or at least near to the location of, a major battle between the Cenél Conaill and the Cenél nÉogain which took place around the year 613 (Lacey 2006, 83).

Thus, all of the monuments described above can be said to make sense in terms of what we know of the political and military conflicts internal to Donegal in the early medieval period. Whether they were, in origin, even older again will only be substantiated by excavation.

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References

- Dinneen, P.S. 1927 *Foclóir Gaedhilge agus Béarla: an Irish-English dictionary*. Dublin. Irish Texts Society.
- Lac[e]y, B. 1983 *Archaeological survey of Donegal*. Lifford. Donegal County Council.
- Lacey, B. 2001 The Grianán of Aileach—a note on its identification. *Journal of the Royal Society of Antiquaries of Ireland* 131, 145–9.
- Lacey, B. 2006 *Cenél Conaill and the Donegal kingdoms: AD 500–800*. Dublin. Four Courts Press.
- Ó Ríordáin, S.P. 1935 Recent acquisitions from County Donegal in the National Museum. *Proceedings of the Royal Irish Academy* 42C, 145–91.
- Raftery B. 1972 Irish hill-forts. In C. Thomas (ed.), *The Iron Age in the Irish Sea province*, 37–58. CBA Research Report 9. London. Council for British Archaeology.
- Somerville, B. 1929 Ancient stone monuments near Lough Swilly, County Donegal. *Journal of the Royal Society of Antiquaries of Ireland* 59, 149–75.
- Waddell, J. 1998 *The prehistoric archaeology of Ireland*. Galway University Press.

Clogher in late prehistory

Richard Warner

Introduction

In about 1968 Barry Raftery and the present writer, influenced by the prevailing opinion that hillforts were predominantly of Iron Age date (Ó Ríordáin 1952, 15–17; Evans 1966, 21–4) and wishing to uncover at last the dwellings of the people so richly represented by their artefacts, decided to excavate two hillforts. He chose the multivallate hillfort at Rathgall, Co. Wicklow, and the writer chose what appeared to be a multivallate hillfort at Clogher, Co. Tyrone. Both parties dedicated the next few years to excavating their respective sites. Raftery (1969), who was pursuing a Master's thesis on the subject of Irish hillforts, published Bersu's excavation of Freestone Hill. He accepted that the presence of certain objects of Iron Age date (albeit of Romano-British origin) supported the idea that this univallate hillfort was of Iron Age date. His seminal paper on Irish hillforts (1972), in which he dealt fully with the history of opinions on the subject, firmly placed them in the Iron Age. Raftery's work at Rathgall was crucial to the change of opinion that he not only accepted but led (and one that was paralleled in hillfort studies in other parts of the British Isles) regarding the date of Irish hillforts. It is clear, as Raftery has himself documented, that those hillforts that have been excavated, such as his own Rathgall and the huge Mooghaun earthwork, are of a late Bronze Age date, roughly between the twelfth and ninth centuries BC (Raftery 1994, 58; Grogan 2005, 240–2; Mallory 1995, 75). This would place them into Eogan's (1964) Roscommon and Dowris A cultural phases (for the latest statement on the chronology of the period see Gerloff 2007, table 13.2). It might well be justifiable to infer, on the basis of the few excavated and dated examples, that all *wide-spaced* multivallate hillforts (within Raftery's class 2) belong to the late Bronze Age. The same date might be appropriate for many of the univallate hillforts, such as Freestone Hill (whose date Raftery corrected in 1995, 151). But there are atypical hillforts, especially the class 2 hillforts with a pair of close-set ramparts, that are still contenders for an Iron Age date (Raftery 1994, 42, 59–63).

The majority of the excavated late Bronze Age hillforts

have produced some evidence for subsequent, low-level, Iron Age activity (Raftery 1994, 58; Grogan 2005, 244; Mallory 1996, 191–2), though hardly enough to qualify them as Iron Age settlements. Despite the enormous increase in excavation consequent upon the recent Irish development programme, Iron Age settlement has, with a few very impoverished (culture-free) or uncertain exceptions (e.g. Walshe 1995), continued to evade discovery. It should, at this point, be stressed that the quite common inclusion in discussions on Irish hillforts of certain large, demonstrably Iron Age, internally ditched earthwork enclosures of a ritual nature is unacceptable. Despite the fact that the distinction between the ditch being on the outside of the bank (defensive—hillfort) or on the inside (ritual) is a fundamental one (Warner 2000a), it is surprising how many writers have treated, and continue to treat, the hillforts and large ritual enclosures as substantially the same thing.

Clogher

In 1966 Estyn Evans described the collection of earthworks at Clogher, located on a drumlin (low glacial hill), as a hillfort, adding that the 'monument may well belong to the group of early Iron Age palaces and sacred places . . .' (Evans 1966, 200). Raftery and the writer, in 1969, accepted that the collection of concentric, closely spaced banks and ditches at Clogher represented a multivallate hillfort, and Raftery (1972, 40) even went so far as to compare its features to Maiden Castle. Preliminary historical research soon suggested that the site might be a capital of the early medieval federation of the mid-Ulster kingdoms known as the Airgialla. Closer inspection at the site itself showed it to be a palimpsest of defensive earthworks probably covering many centuries. It was, for instance, clear that the central earthworks belonged to a ringfort of early medieval date. But it seemed entirely possible that the surrounding earthwork, in whose south-east corner nestled an Iron Age ring-barrow, was a univallate hillfort. Excavation, therefore, seemed entirely justifiable in that one might thereby trace the history of a single site spanning the Iron Age and the early medieval

period, and this, with some provisos, has proved to be the outcome (Warner 2000b; a complete plan of the site can be found in O'Kelly 1989, 324, fig. 165).

The Clogher timber-laced stone enclosure

The first substantial occupation at Clogher was associated with a relatively small stone-walled enclosure that surrounded a number of sterile pits. Only a short stretch of the inner face of the wall survived, the wall body—of small rubble—having been mostly removed by a later palisade trench. There was no external ditch. This stone-walled enclosure, judging by the position and line of the excavated portion near the backbone of the drumlin, and by its slight curve, was not very large—perhaps an oval of some 30m by 20m. Radiocarbon dates bracketing the occupation show (at the usual 95% confidence level) that the enclosure was built between the ninth and fourth centuries BC—conventionally within the late Bronze Age. Of particular interest is that the wall appeared to have contained transverse timbers, three holes for which remained in the wall face (Fig. 1A). Timber-laced fort ramparts with stone facing are found throughout Britain during the (British) late Bronze Age and Iron Age, and in Scotland they not uncommonly gave rise to vitrification. In Scotland, in particular, small timber-laced fortlets ('duns') of comparable size and description to the one under discussion are also found (often vitrified) and are of Iron Age date (MacKie 1976; Nisbet 1995). But Harding (2004, 88) has warned against inferring any chronological or cultural connections on the basis of vitrification and, by extension, timber-lacing. Timber-lacing has not been reported in Ireland, although it would be difficult to identify in the excavation of 'dump' ramparts. Vitrification is, on the other hand, much easier to spot and, although it depends on the rampart being made of precisely the right sort of stone, the fact that only one certain vitrified fort has been found in Ireland suggests that both timber-lacing and vitrification are unusual here.

The 1830s Ordnance Survey Memoirs refer to a large earthen fort with a bank core of highly vitrified material—at Rallagh, Co. Derry (Warner 1983). Although most of the bank had been levelled since that report, the writer found lumps of vitrified stone around a substantial part of its original line. The fort was, in about 1985, almost completely quarried away before it could be studied properly, but some charcoal was recovered from the bottom of a ditch that could

be faintly seen in section in the quarry. This charcoal gave a date of between 1100 and 200 cal. BC—not entirely satisfactory but at least not incompatible with the Clogher enclosure.

Although small, stone-walled enclosures—in popular parlance 'cashels'—are extremely common in Ireland, the majority are quite correctly ascribed to the early medieval period or later. Two, however, are especially pertinent to this discussion: Carrigillihy (Co. Cork) and Aughinish (Co. Limerick). Carrigillihy (O'Kelly 1951) produced cultural material and radiocarbon dates (O'Kelly 1989, 222) that place it somewhere within the late Bronze Age. The stone wall of this small oval enclosure was particularly notable in having radial stones set at intervals in the outer wall face, as if copying the appearance of transverse timbers. The small oval stone fort on Aughinish Island in the Shannon estuary produced a knob-headed pin and what might have been an iron horse-bit, both possibly of European origin and Hallstatt C date, indicating that the enclosure belonged to the Dowris B phase (Raftery 1976, 192).

The Clogher stone 'fort' was associated with coarse pottery of an unusual club-rim form (Fig. 1B) not yet exactly paralleled with any certainty at any other Irish site. There were no other culturally diagnostic artefacts, and pottery with fabric, rim shapes and features more typical of the Irish late Bronze Age was absent (Boreland 1996, 24; McCorry 1997, 79). Amongst the fairly large collection of (mostly rim) sherds there were no flat (base) or corner sherds. It is tentatively concluded that the Clogher sherds were from pottery copies of Atlantic (class B) bronze cauldrons, an interpretation also suggested for some pots from the Upper Thames basin (Harding 1972, 76–7). Such a comparison would place the pottery into, or slightly later than, Eogan's (1964) Dowris B (= Hallstatt C) phase (Gerloff 1986, 100), which would now be dated to the eighth and earlier seventh centuries. The Clogher type of rim is also extremely reminiscent of the rim of an unprovenanced Irish wooden cauldron (Hodges 1957, 57, fig. 6), which, it has been suggested (Eogan 1964, 301), is also a copy of an Atlantic B cauldron. This wooden vessel has a radiocarbon date range of 1030–720 cal. BC (Earwood 1993, 46), which is not incompatible with this suggestion. Conventionally, of course, the Clogher timber-laced enclosure would be described as late Bronze Age. There is now overwhelming evidence that the Irish Iron Age began well before the traditional date of about 300 BC, and perhaps as early as in Britain—around the seventh century

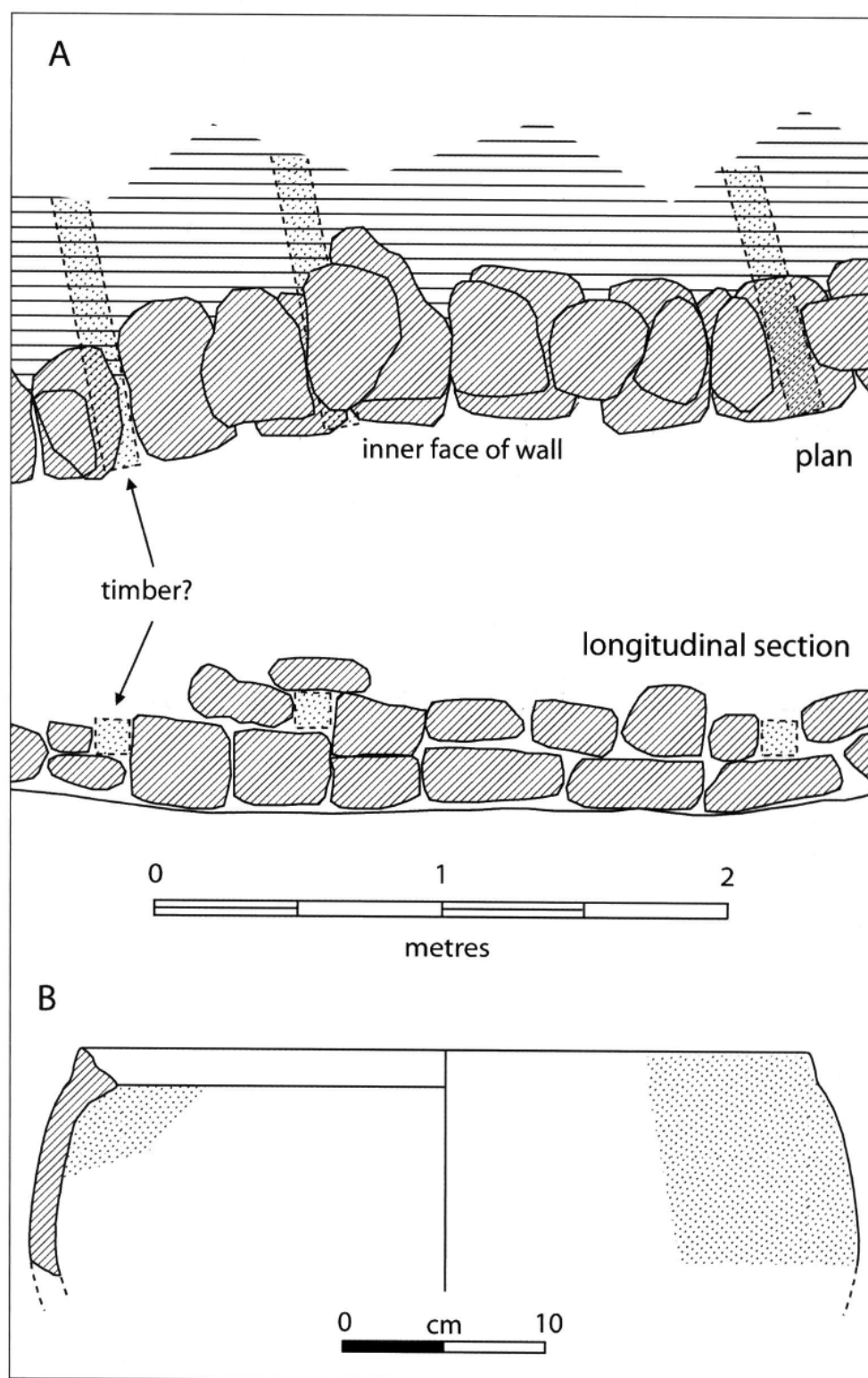


Fig. 1—A: plan and longitudinal section of the timber-laced wall at Clogher. B: associated coarseware pot.

BC. This is not the appropriate place to discuss this topic at length—the discussions of Raftery (1976) and Scott (1990, 45–60) are still relevant. In addition to the evidence from Aughinish alluded to above, one should bear in mind, in the light of what we have said above, the bronze class B cauldron from Lisdrumturk, Co. Monaghan, with its several iron rivets, many of which seem to be original (Briggs 1987, 174). But of most importance in this regard are the occurrences of iron slag, or iron-smelting evidence, now being recovered from rescue excavations, which are giving radiocarbon dates earlier than the fifth century BC—for instance Kinnegad site 2, Co. Westmeath, and Rossan site 6, Co. Meath (Murphy 2008; Carlin 2008, 101–4). It is therefore at least possible that the Clogher stone enclosure was culturally Iron Age.

The Clogher hillfort

Surrounding the upper part of the drumlin on which the Clogher complex stands, and very roughly following the shape of the hill, is a bank with an external ditch (Fig. 2). The bank is only traceable on the south and west, but the ditch has been exposed by excavation on the other two sides and the shape of the whole can be discerned. The enclosure is subrectangular and measures some 150m by 110m (1.5ha). The bank and ditch are, at first sight, rather slight—indeed, there is no surface indication of the ditch at all. The only fairly complete, and undamaged, section (Fig. 2) seemed to show that a rather slight bank core, of dumped subsoil with some stones roughly placed against its inner face, had been obtained from an insubstantial ‘U’-section ditch scarcely 2m wide and 1m deep from the present ground surface. In fact, profiling of the hill showed that what was ostensibly the ditch was actually only an inner part of a much wider and shallower ditch, some 20m wide and 2m deep below the *original* ground surface. Although the material from this had been dumped on top of and behind the core bank, there was no sign that either ditch profile was cut into the other—the whole seemed to be a single feature. One would normally hesitate to call this a ‘hillfort’, with its defensive connotations, were it not for the extreme labour indicated by the cutting of the wide part of the ditch. The removed spoil has a section of 20m², which is the spoil equivalent (if not the defensive equivalent) of a ‘V’-section ditch 9m wide by 4m deep. Furthermore, the depth of the bank face, from the bottom of the ditch to the surviving top

of the bank, is almost 4m.

It will be seen from the plan that the hillfort earthwork intentionally bulges out to curve around a well-preserved ring-barrow in its south-east corner—the fort clearly respects the barrow. It can be concluded that the hillfort was either constructed as one with the ring-barrow or is later. Ring-barrows are small circular enclosures in which a bank with an internal ditch encircles a flat area or a mound. The bank with *internal* ditch is the characteristic definition of such a site—it is, in effect, a tiny version of the large ritual Iron Age enclosures mentioned above. At Navan, Co. Armagh, we find both of these monument types, and there the Iron Age date of each has been established (Lynn 1997). In his comprehensive discussion of Irish Iron Age burials, Raftery (1981) reserves the term ‘ringbarrow’ for the examples with a central mound, calling the mound-less sites like those at Clogher or Navan ‘embanked enclosures without covering mound’. Accepted usage seems now, rightly or wrongly, to use the term ‘ring(-)barrow’ for either the mounded or mound-less examples, and that is how the term will be used here. Raftery makes it clear that these burial sites—for such they are—are characteristic of the Irish Iron Age. The Clogher ring-barrow, in common with a number of others, has a roughly east-facing gap and causeway through the bank and ditch which excavation showed to be original. The central area was devoid of features, but tiny fragments of burnt bone and a small blue glass bead low in the ditch suggested that at least one Iron Age cremation had been present.

There can be little doubt, then, that the ring-barrow dates from the Iron Age, and that the hillfort is not earlier. Dating evidence from the hillfort earthwork itself is poor, consisting of an ambiguous artefact and an unhelpful radiocarbon date. Both came from the upper part of the primary slippage of bank material into the ditch. The radiocarbon date tells us only that the level dates from within the period cal. AD 400–1200. The artefact is a plain bronze spiral ring. Such rings can be found in the Iron Age (Raftery 1984, 197) and in the following early medieval period as attachments to ornaments such as zoomorphic penannular brooches (Kilbride-Jones 1980, nos 86 and 89). Such brooches were being made at Clogher in the sixth century AD (*ibid.*, 63–7) and other spiral rings were found on the site in levels of that phase. The most reasonable inference from this evidence is that the ditch was silted to about 25cm by the sixth century AD. To revert to the evidence of the ring-barrow, it might be thought likely that the obvious care

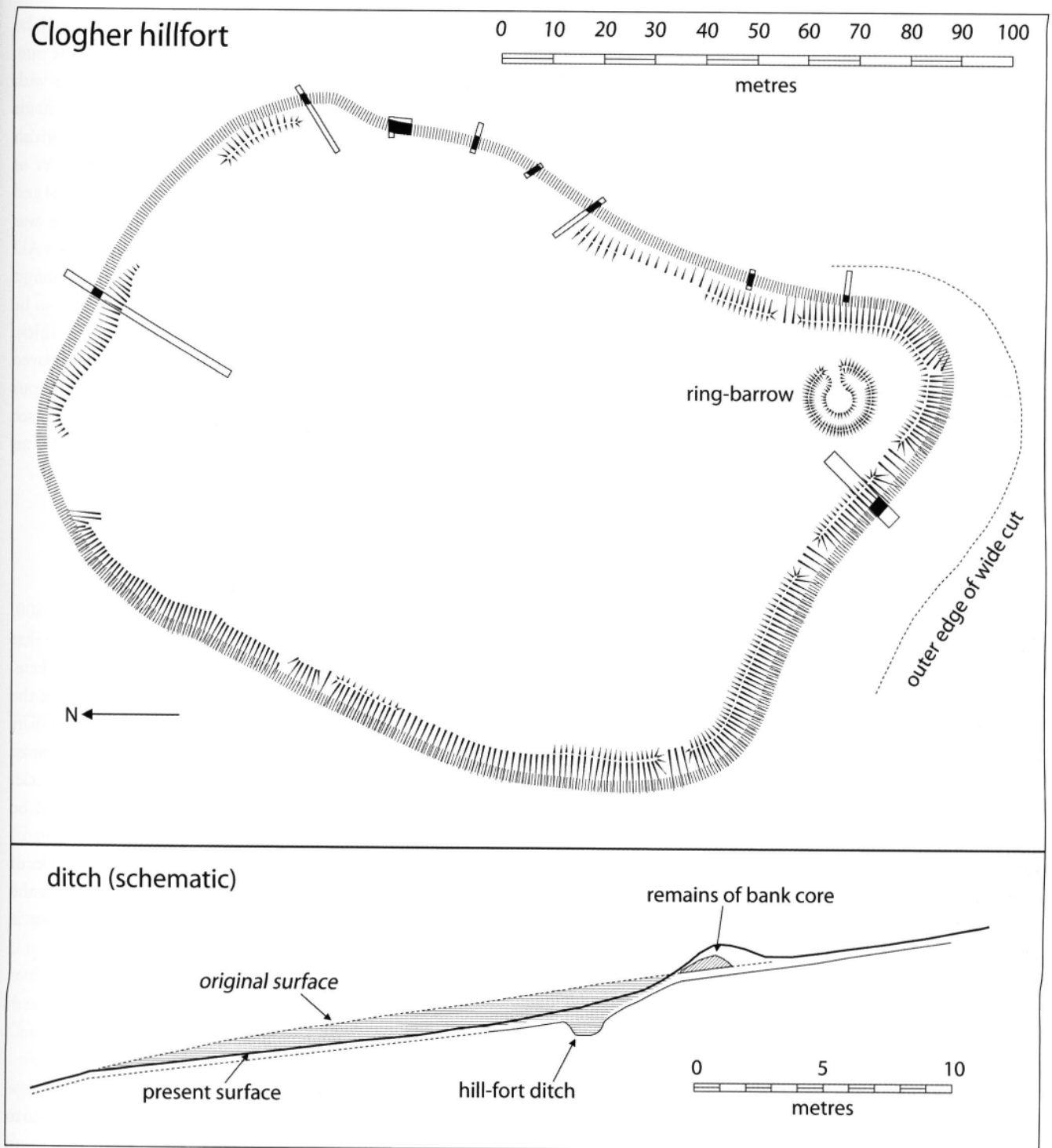


Fig. 2—Plan of the Clogher hillfort and ring-barrow (all other earthworks have been deleted), and schematic profile and section of the ditch.

taken in avoiding it in the construction of the hillfort was because of a pagan reverence unlikely from the post-Iron Age Christians of the later occupation. The interior of the hillfort was heavily modified during that period, however, and the hillfort bank substantially removed or modified, yet the ring-barrow remained undamaged.

Our conclusion, unproven and pending further evidence, is that the hillfort at Clogher is very likely to be of Iron Age date. The wide-cut ditch has no known Irish parallel and may be just a whim of its makers, but it might be relevant to draw attention to the very similar Continental and south-east English, just pre-Roman, *Fécamp* type of hillfort ditch (Cunliffe 1978, 282–3). The subrectangular shape of the enclosure is difficult to parallel in Ireland before the late medieval period but is widely found amongst English hillforts (Hogg 1975, *passim*). The shape was not forced upon the earthwork by the shape of the hill on which it sits, which is oval. It falls into Avery's class (g) 'polygonal plan forts (whose) plan is not imposed by the shape of the hill' (1976, 9). One should also not forget that the subrectangular shape is rather normal for *Roman* forts in Britain, which leads us to the following observation. It is that the excavations inside the Clogher hillfort (other than in the ring-barrow) failed to produce any native Iron Age material whatsoever, but did produce a not-insignificant number of imported Romano-British objects. It is this latter fact that makes the dearth of native material significant: the place was occupied in the Iron Age, but apparently not by natives.

Over most of the centre of the hillfort, where later activity had been intense, almost all earlier contexts had been disturbed. Consequently all the recovered artefacts potentially dating from the hillfort period were in disturbed deposits of a later date. The most striking Iron Age object is a fragment of a brooch of the Langton Down (= Collingwood K) type (Hawkes 1981, 65) (Fig. 3B). This first-century AD type is common in south-east England and on the Continent (Jope 1962, fig. 8) and occurs again in Ireland at Lambay (Rynne 1976, 241; Raftery 1983, no. 867). The number of first-century Roman-style brooches that have been found in Ireland is remarkable, equalling the number found in Britain outside the south-east (the 'lowland' zone), whereas later Roman brooches are rarely found in Ireland. It is especially notable that the Clogher brooch appears to have been gilded—apparently very rare, but one comes from Malden in Essex (Hawkes and Hull 1947, 318). Several pottery sherds were found at Clogher

which are clearly foreign to Ireland but do not appear to be early medieval imports, which were plentiful on the site. These exotic sherds include two bowls of buff ware with prominent foot-rings (Fig. 3A, 1 and 2), a number of sherds that have been tentatively identified as Romano-British slipware (including a dish, Fig. 3A, 3), and a number of small sherds that are brown- or green-glazed (Fig. 3A, 4) and seem likely to be 'lead-glazed ware' of the kind that was widely made in southern Britain in the later first century AD (Arthur 1978). All these sherds can be paralleled amongst the finewares of Roman Britain, and none would have to be much later than the end of the first century AD. A thick, disc-shaped quernstone, which has a radially grooved grinding face and has therefore no place within the corpus of Iron Age 'beehive querns' in Ireland (for which see Caulfield 1977; Warner 2002a), seems certain to be an import from a Romano-British milieu.

The ring-ditch at Clogher

As it is a convention to end the Iron Age at about AD 400, discussion of a fourth-century AD ring-ditch enclosure that preceded the early medieval ringfort might be expected here. Late Roman objects were recovered, including one from the bottom of this ditch. The material culture of the early part of the succeeding early medieval period is, however, almost completely late Roman in its character (Laing 1985). It can be argued that the early medieval period, which should be defined on archaeological grounds (the Romanisation of Irish culture) rather than philosophical (the introduction of Christianity, which is only a part of the process), began at the latest in the fourth century. For this reason the writer is inclined to end the Iron Age at about AD 300.

The Iron Age at Clogher

In this particular part of the discussion the term 'Iron Age' is used in the conventional sense of the third century BC to the fourth century AD. The map of the area close to Clogher (Fig. 4) shows that the place appears to be at the centre of a relatively dense concentration of stray Iron Age objects. Within about 4km of the site have been found a wooden copy of a Loughnashade-type horn, a Y-shaped bridle-pendant, a safety-pin brooch (Raftery 1983, nos 785, 150, 376) and a beehive quern—all strictly native Iron Age.

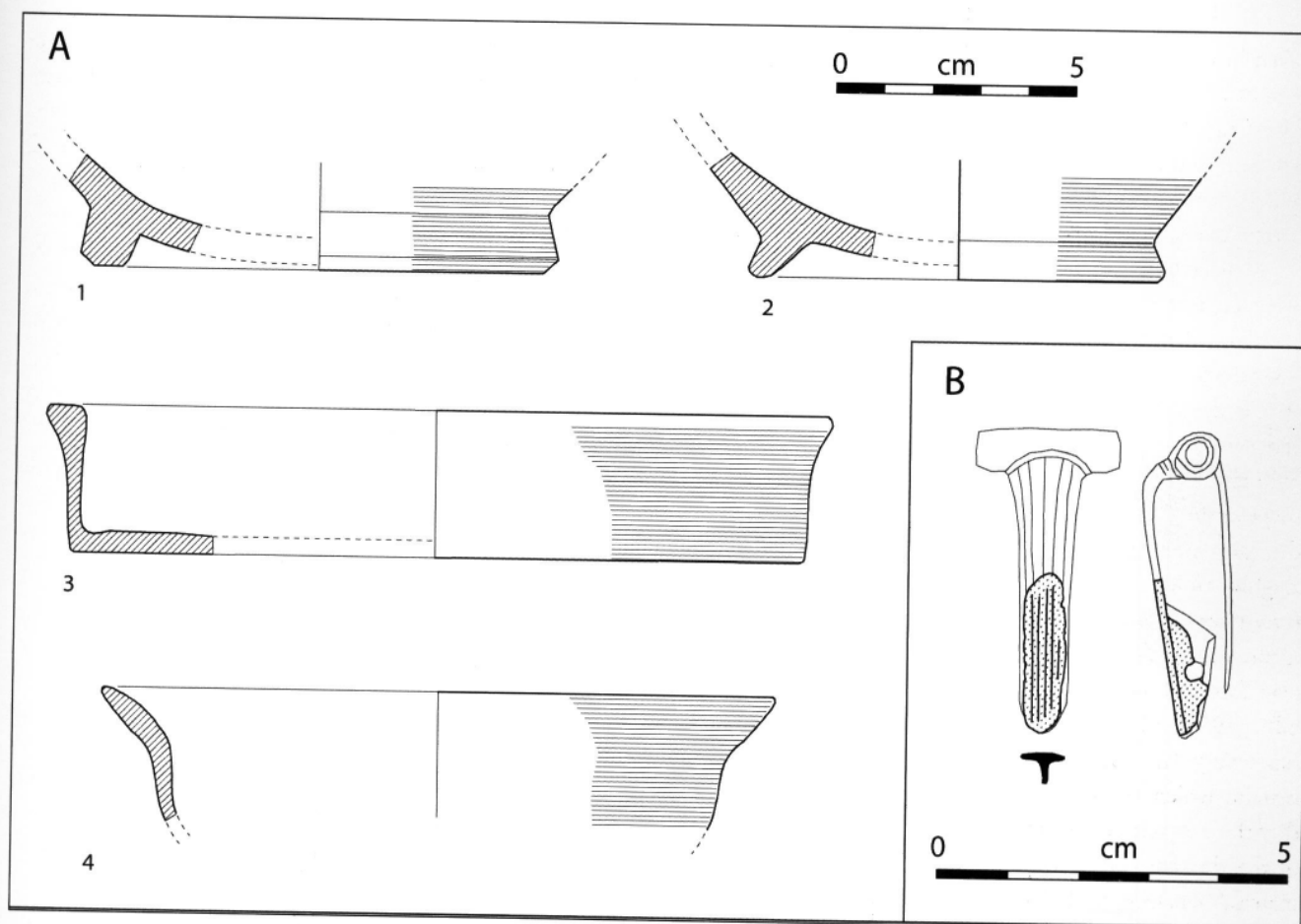


Fig. 3—Romano-British finds from Clogher. A: finewares. B: fragment of Langton Down brooch, with reconstruction based on British examples.

The two bronze objects date from the first century BC or the first AD and belong to a small number of types that are concentrated in the Blackwater Valley—the east-west zone roughly between Navan in County Armagh and Lough Erne (Fig. 5; Raftery 1984, 316). Interestingly, the same zone remains something of a vacuum when it comes to many of the other Iron Age types, particularly those concentrated in County Antrim and in the Irish midlands. The most striking feature of this local concentration is that two nuclei may be seen: one at and around Navan (the great Iron Age ritual enclosure) and the other at and around Clogher. Furthermore, near these two sites the horn, the Y-shaped pendant and the safety-pin brooch are repeated. One object type at least (the Y-shaped bridle-pendant of type 1a) can be shown to have been manufactured in this zone (Warner 2002b). Another for which a similar argument can be made is the safety-pin brooch. That found near Clogher—a fine, decorated specimen which excited the admiration of

Hawkes, who dated it rather too early (1981, 56–7)—has the identical lipped 'boss-style' decoration of the Kiltierney brooch (Raftery 1983, no. 380) from some 30km to the west, in the same zone. Both share traits with the 'Navan'-style brooches which have been discussed by Raftery (1984, 153–7) and which might have been made near Navan. Raftery (1984, 316) suggested that the Clogher hillfort might be crucial in the distribution of these objects, an opinion with which the present writer would be inclined to agree, were it not for two observations. The first, which has been mentioned above, is that no native Iron Age material was found in the Clogher excavations. There is absolutely no reason, therefore, to believe that the occupants of Clogher in the first century AD were not settlers from Britain.

The second observation is that there is a large univallate hillfort on Mallabeny Hill, 4km north-west of the Clogher hillfort (Fig. 6). Although its high placing, regular

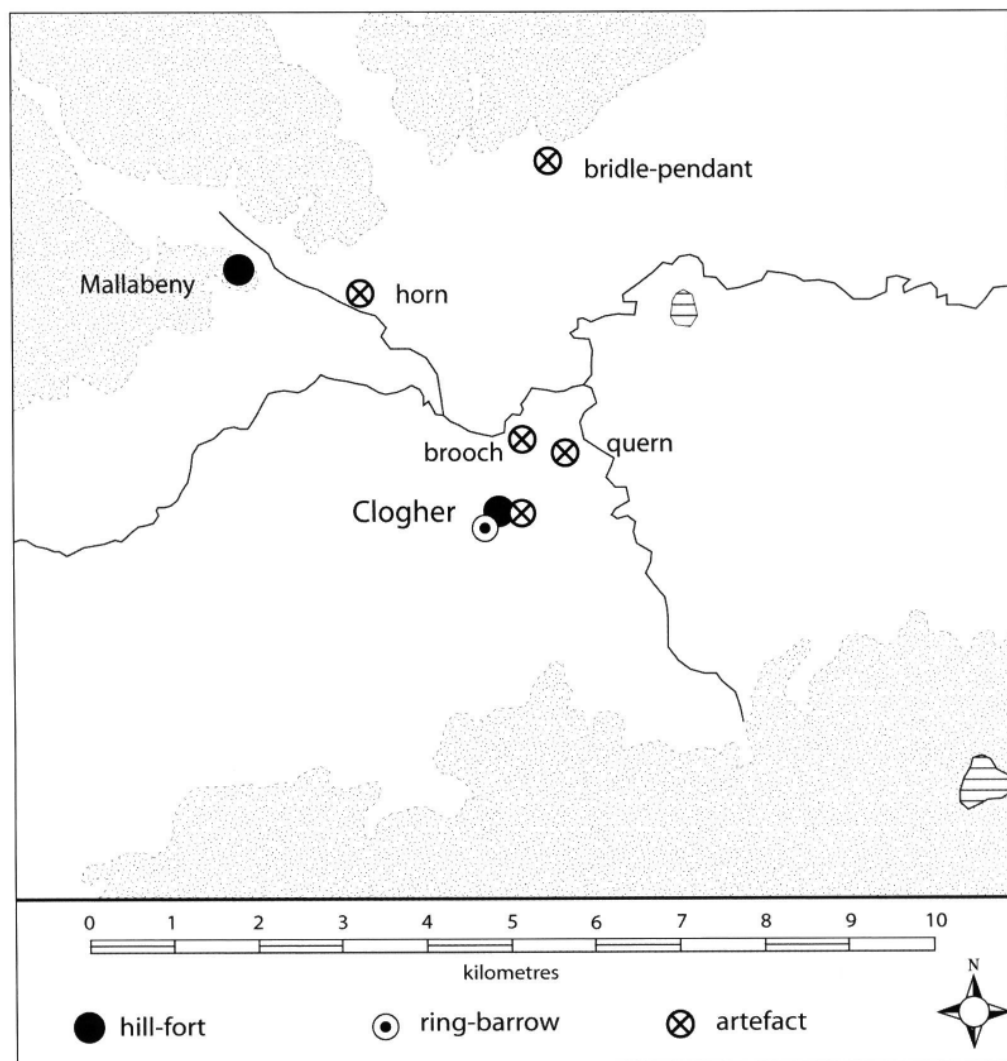


Fig. 4—Map of the area around Clogher, showing locations of Iron Age finds (land above 150m is shaded).

subcircular shape and faithfulness to the (180m) contour are rather comparable with those hillforts that have been classed as late Bronze Age, there is no visible multivallation. One should bear in mind, however, that the late Bronze Age Haughey's Fort was also first described as univallate, its outer ditches being quite invisible on the ground. Therefore, while the proximity of Mallabeny to Clogher is a matter of interest, it may be of no more moment than the recognition, by the builders of each hillfort, of the strategic importance of this point in the Blackwater valley, where east-west and north-south routes apparently cross. There is no overwhelming reason, however, to call Mallabeny late Bronze Age, and an Iron Age date cannot be dismissed.

The mid-second-century AD Romano-Greek geographer Ptolemy's 'map' of Ireland (Byrne 1984, map 14) records one 'town' whose position seems to be within the 'south-central Ulster' area in which we are interested—*Regia*. The probable meaning of this place-name—a 'royal place' (O'Rahilly 1946, 14)—would seem to point to Navan as its location. Because of a reference by the Roman author Marcian, however, that there were in Ireland fifteen towns and five promontories, conflicting with (his source) Ptolemy's statement that there were fourteen towns and six promontories, the primary editor of the Ptolemy manuscripts suggested that one of Ptolemy's promontories should be a town (Müller 1883, 79n.). He thought that the

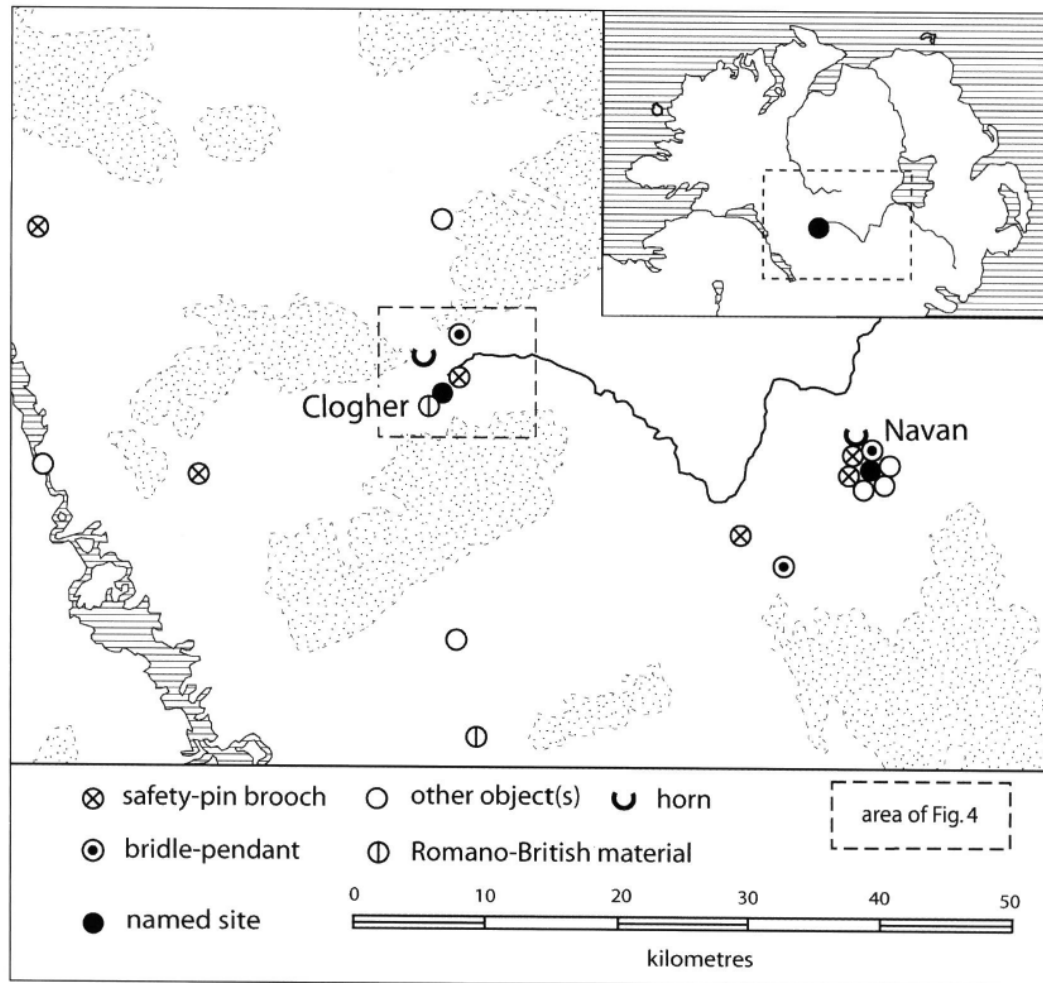


Fig. 5—Map of mid-south Ulster, including Clogher and Navan (land above 200m is shaded). The 'horn' symbol at Navan stands for four associated bronze horns. Querns are not shown.

erroneous promontory was *Isamnion* and henceforth that place has been adjudged a town by scholars. The observation by O'Rahilly (1946, 13) that the name *Isamnion* appeared to be close to the original form of *Emain* (= Navan) 'confirmed' the decision and it was moved far inland from the coast, where it 'properly' belonged. With Navan identified as *Isamnion*, another site was required to be equated with *Regia*, and Byrne (1984, map 15) has suggested Clogher as that site. Much as this writer, with his interest in Clogher, would like this to be the case, it is his opinion that the whole hypothesis is without objective justification.

As to Romano-British material, which appears to form the Iron Age component in the Clogher hillfort, it has to be said that the only other items from this milieu that have been reliably reported as coming from the area in Fig. 5 are the

associated horse-bit and mount from Killeevan, 25km south of Clogher (Raftery 1983, nos 132, 803; 1984, 42). The mount is paralleled by one from Lambay Island (Lloyd-Morgan 1976) in the same collection of Romano-British grave-goods that also contained the Langton Down brooch referred to above. The meaning of the Romano-British material at Clogher and Lambay (and other places in Ireland) at the end of the first century AD has been discussed elsewhere (Warner 1995, replacing Warner 1976). The native Iron Age material in the Clogher area, being of the first centuries BC and AD, is not greatly different in date to the Romano-British objects from Clogher, which raises interesting questions, at present unanswerable, about the nature of the settlement in this zone in the earlier and later parts of the Iron Age and the relationship between the

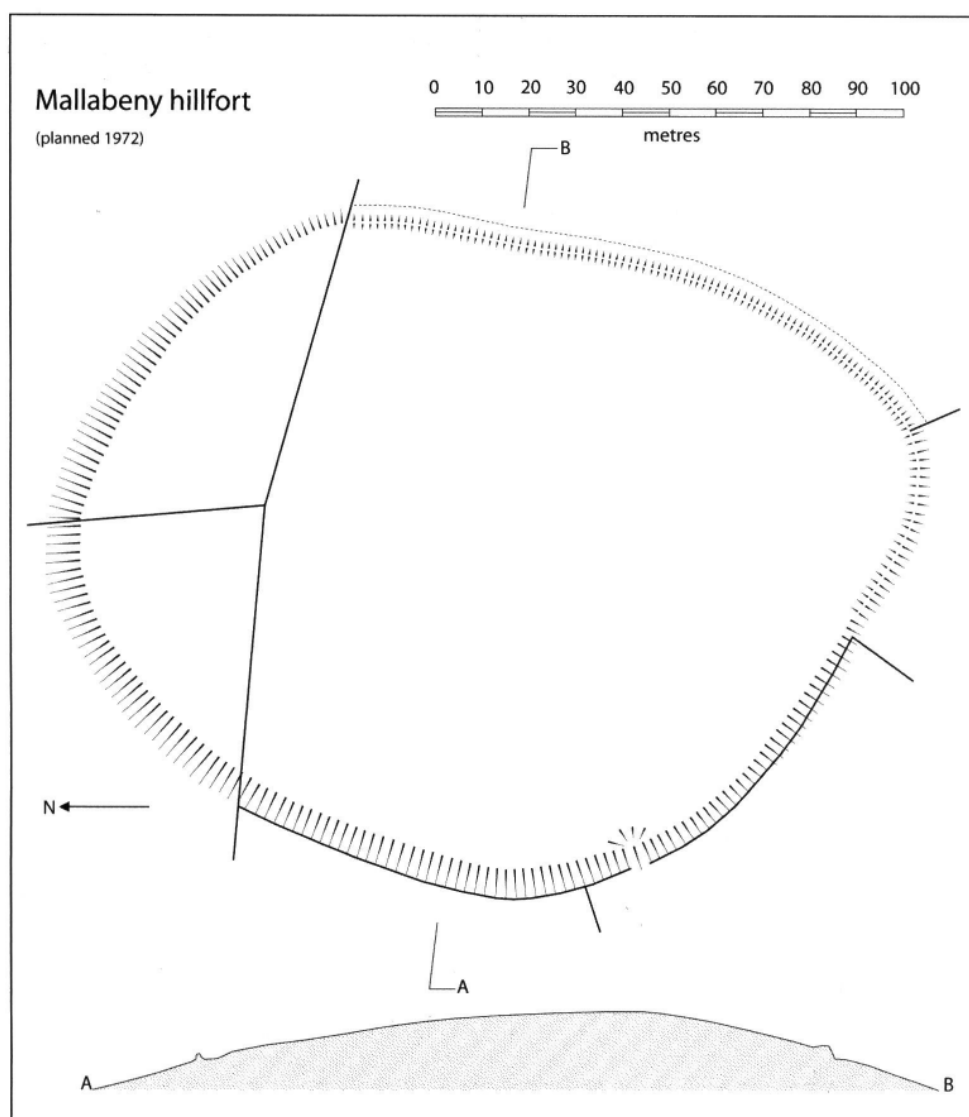


Fig. 6—Plan of Mallabeny hillfort, Co. Tyrone.

natives and the incomers. Perhaps, if Clogher was the hillfort of the intruders, Mallabeny was the fort of the natives. Only further excavation will tell.

References

- Arthur, P. 1978 The lead glazed wares of Roman Britain. In P. Arthur and G. Marsh (eds), *Early fine wares in Roman Britain*, 293–355. British Archaeological Reports, British Series 57. Oxford.
- Avery, M. 1976 Hillforts of the British Isles: a student's introduction. In D. W. Harding (ed.), *Hillforts*, 1–58. London. Academic Press.
- Boreland, D. 1996 Late Bronze Age pottery from Haughey's Fort. *Emania* 14, 21–8.
- Briggs, C.S. 1987 Buckets and cauldrons in the Late Bronze Age of north-west Europe: a review. In J. C. Blanchet (ed.), *Les Relations entre le Continent et les Iles Britanniques à l'Age du Bronze*, 161–87. Amiens. Actes du Colloque de Bronze de Lille.
- Byrne, F.J. 1984 Ptolemy's map of Ireland. In T. W. Moody, F. X. Martin and F. J. Byrne (eds), *A new history of Ireland*, Vol. 9 (2), 16 and 98. Oxford University Press.

- Carlin, N. 2008 Ironworking and production. In N. Carlin, L. Clarke and F. Walsh (eds), *The archaeology of life and death in the Boyne floodplain*, 87–112. Dublin. National Roads Authority.
- Caulfield, S. 1977 The beehive quern in Ireland. *Journal of the Royal Society of Antiquaries of Ireland* 107, 104–39.
- Cunliffe, B. 1978 *Iron Age communities in Britain* (2nd edn). London. Routledge and Kegan Paul.
- Earwood, C. 1993 *Domestic wooden artefacts*. University of Exeter Press.
- Eogan, G. 1964 The Later Bronze Age in Ireland in the light of recent research. *Proceedings of the Prehistoric Society* 30, 268–351.
- Evans, E.E. 1966 *Prehistoric and Early Christian Ireland: a guide*. London. Batsford.
- Gerloff, S. 1986 Bronze Age class A cauldrons: typology, origins and chronology. *Journal of the Royal Society of Antiquaries of Ireland* 119, 84–115.
- Gerloff, S. 2007 Reinecke's ABC and the chronology of the British Bronze Age. In C. Burgess, P. Topping and F. Lynch (eds), *Beyond Stonehenge*, 117–61. Oxford. Oxbow Books.
- Grogan, E. 2005 *The North Munster Project*, Vol. 1. Discovery Programme Monograph 6. Dublin. Wordwell.
- Harding, D.W. 1972 *The Iron Age in the Upper Thames Basin*. Oxford. Clarendon Press.
- Harding, D.W. 2004 *The Iron Age in North Britain*. Abingdon. Routledge.
- Hawkes, C.F.C. 1981 The wearing of the brooch: Early Iron Age dress among the Irish. In B. Scott (ed.), *Studies on early Ireland*, 51–73. Belfast. Association of Young Irish Archaeologists.
- Hawkes, C.F.C. and Hull, M.R. 1947 *Camulodunum*. Society of Antiquaries Research Report 14. Oxford.
- Hodges, H.W.M. 1957 Studies in the Late Bronze Age of Ireland. *Ulster Journal of Archaeology* 20, 51–63.
- Hogg, A.H.A. 1975 *Hillforts of Britain*. London. Hart-Davis, MacGibbon.
- Jope, E.M. 1962 Iron Age brooches in Ireland. *Ulster Journal of Archaeology* 24–5, 25–38.
- Kilbride-Jones, H. 1980 *Zoomorphic penannular brooches*. Society of Antiquaries Research Report 39. London.
- Laing, L. 1985 The Romanization of Ireland in the fifth century. *Peritia* 4, 261–78.
- Lloyd-Morgan, G. 1976 A note on some Celtic discs from Ireland and the province of Lower Germany. *Proceedings of the Royal Irish Academy* 76C, 217–22.
- Lynn, C.J. (ed.) 1997 *Excavations at Navan Fort 1961–71*. Belfast. The Stationery Office.
- McCorry, M. 1997 Coarse pottery from phase 3. In C. J. Lynn (ed.), *Excavations at Navan Fort 1961–71*, 72–9. Belfast. The Stationery Office.
- MacKie, E.W. 1976 The vitrified forts of Scotland. In D. W. Harding (ed.), *Hill-forts: later prehistoric earthworks in Britain and Ireland*, 205–35. London. Academic Press.
- Mallory, J.P. 1995 Haughey's Fort and the Navan Complex in the Late Bronze Age. In J. Waddell and E. Shee Twohig (eds), *Ireland in the Bronze Age*, 73–86. Dublin. Stationery Office.
- Mallory, J. 1996 The other twin: Haughey's Fort. In J. Mallory and G. Stockman (eds), *Ulidia*, 187–92. Belfast. December Publications.
- Müller, K. 1883 *Claudii Ptolemaei Geographia*, 1.1. Paris. Institut de France.
- Murphy, D. 2008 Reports on Kinnegad 2 and Rossan 6. In N. Carlin, L. Clarke and F. Walsh (eds), *The archaeology of life and death in the Boyne floodplain*, CD-ROM. Dublin. National Roads Authority.
- Nisbet, H.C. 1995 Excavation of a vitrified dun at Langwell, Strath Oykel, Sutherland. *Glasgow Archaeological Journal* 19, 51–73.
- O'Kelly, M.J. 1951 An Early Bronze Age ringfort at Carrigillihy, Co. Cork. *Journal of the Cork Historical and Archaeological Society* 56, 69–86.
- O'Kelly, M.J. 1989 *Early Ireland*. Cambridge University Press.
- O'Rahilly, T.F. 1946 *Early Irish history and mythology*. Dublin Institute for Advanced Studies.
- Ó Ríordáin, S.P. 1952 *Antiquities of the Irish countryside* (2nd edn). London. Methuen.
- Raftery, B. 1969 Freestone Hill, Co. Kilkenny: an Iron Age hillfort and Bronze Age cairn. *Proceedings of the Royal Irish Academy* 68C, 1–108.
- Raftery, B. 1972 Irish hill-forts. In C. Thomas (ed.), *The Iron Age in the Irish Sea province*, 37–58. CBA Research Report 9. London. Council for British Archaeology.
- Raftery, B. 1976 Dowris, Hallstatt and La Tène in Ireland: problems of the transition from bronze to iron. In S. J. de Laet (ed.), *Acculturation and continuity in Atlantic Europe mainly during the Neolithic period and the Bronze Age*, 189–97. Bruges. *Dissertationes Archaeologicae Gandensis*.

- Raftery, B. 1981 Iron Age burials in Ireland. In D. Ó Corráin (ed.), *Irish antiquity*, 173–204. Cork. Tower Books.
- Raftery, B. 1983 *A catalogue of Irish Iron Age antiquities*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 1. Phillips-Universität, Marburg.
- Raftery, B. 1984 *La Tène in Ireland: problems of origin and chronology*. Veröffentlichung des Vorgeschichtlichen Seminars Marburg, Sonderband 2. Phillips-Universität, Marburg.
- Raftery, B. 1994 *Pagan Celtic Ireland*. London. Thames and Hudson.
- Raftery, B. 1995 The conundrum of Irish Iron Age pottery. In B. Raftery, V. C. S. Megaw and V. Rigby (eds), *Sites and sights of the Iron Age*, 149–56. Oxbow Monograph 56. Oxford.
- Rynne, E. 1976 The La Tène and Roman finds from Lambay, County Dublin. *Proceedings of the Royal Irish Academy* 76C, 231–44.
- Scott, B.G. 1990 *Early Irish ironworking*. Belfast. Ulster Museum.
- Walshe, G. 1995 Iron Age settlement in County Mayo. *Archaeology Ireland* 9 (2), 7–8.
- Warner, R. 1976 Some observations on the context and importation of exotic material in Ireland, from the first century BC to the second century AD. *Proceedings of the Royal Irish Academy* 76C, 267–92.
- Warner, R. 1983 Ulster, Ireland and Scotland in the Iron Age. In A. O'Connor and D. Clarke (eds), *From the Stone Age to the 'Forty-five*, 160–87. Edinburgh. John Donald.
- Warner, R. 1995 Tuathal Techtmhar: a myth or ancient literary evidence for a Roman invasion? *Emania* 13, 23–32.
- Warner, R. 2000a Keeping out the Otherworld: the internal ditch at Navan and other Iron Age 'hengiform' enclosures. *Emania* 18, 39–44.
- Warner, R. 2000b Clogher: an archaeological window on early medieval Tyrone and mid-Ulster. In C. Dillon and H. Jefferies (eds), *Tyrone: history and society*, 39–54. Dublin. Geography Publications.
- Warner, R. 2002a Beehive querns and Irish 'La Tène' artefacts: a statistical test of their cultural relatedness. *Journal of Irish Archaeology* 11, 125–30.
- Warner, R. 2002b A newly discovered Iron-Age 'pendant' from Navan. *Emania* 19, 37–42.

7. Archaeological histories

The life and legacy of R. A. S. Macalister: a century of archaeology at UCD

Muiris O'Sullivan

To honour Professor Barry Raftery's contribution to archaeological scholarship is to celebrate not only the impact of his professional career but also the significance of the chair he held with distinction for ten years (1997–2007). He was the latest in a succession of illustrious Professors of Celtic Archaeology at University College Dublin during the first hundred years of the National University of Ireland, following on from Robert Alexander Stewart (R. A. S.) Macalister (1909–43), Seán P. Ó Ríordáin (1943–57), Ruaidhrí de Valera (1957–78) and George Eogan (1979–95). The tradition of erudition personified by Barry Raftery was established during the long tenure of R. A. S. Macalister (1870–1950) and burnished in turn by his successors, each of whom was recognised as an international figure in his own area and an intellectual leader in Irish archaeology. In tribute to Barry's contribution, it seems appropriate to review the life and circumstances of Macalister, the pioneer whose interpretation of the role set an ambitious standard for those who followed. As will be seen below, however, there was a prologue to Macalister's tenure in the chair.

In 1854, half a century before the establishment of the National University of Ireland (NUI), Eugene O'Curry (1794–1862) had been appointed Professor of Irish History and Archaeology in Newman's Catholic University, later incorporated into the NUI as UCD. O'Curry is best remembered as a scholar of Irish language and literature who had a supreme knowledge of manuscript sources and played a pivotal role in bringing ancient Irish scholarship to a mid-nineteenth-century English-speaking readership. In the 1830s he was appointed to the topographical department of the Ordnance Survey of Ireland, where he worked with the antiquarian John O'Donovan under the direction of George Petrie. Tasked with providing a context for the place-names and antiquities encountered in the mapping process, O'Donovan gathered evidence in the field while O'Curry concentrated on the extraction of material from manuscripts. Although his time in the Ordnance Survey came to an end in 1842, O'Curry continued to pursue his literary scholarship against a broader antiquarian canvas, and his post in Newman's Catholic University was designed to

focus on 'the language, remains, MSS etc. of ancient Ireland, with a special reference to its Catholicity' (Waddell 2005, citing Herity 1967). Distinguished as the second archaeological chair to be established in these islands, after the Disney Professorship in Cambridge (endowed 1851), the Dublin post remained vacant after O'Curry's death in 1862 but seems to have formed the template for the chair advertised after the incorporation of UCD into the NUI in 1908. While changes occurred during the appointment process (McCartney 1999, 68), it is noteworthy that, of all the incumbents of the Archaeology chair during the past century, R. A. S. Macalister came closest to fitting the profile established by O'Curry, whereas his successors developed the role in a variety of specialised directions. When, shortly after his own appointment in 1997, Barry Raftery arranged to have portraits of his predecessors hung in UCD, he reinforced the link back to the nineteenth century by placing O'Curry's image at the head of the line. A great deal of Barry's own scholarship, like that of O'Curry and Macalister, was concerned with Celtic issues, but Raftery placed his trust in the archaeological evidence, whereas O'Curry specialised in the written word and Macalister tried to intertwine the two. Each was a product of his time and training.

Macalister before UCD

By the time R. A. S. Macalister was appointed Professor of Celtic Archaeology in UCD, he was in his fortieth year and had already established himself as a scholar of considerable achievement, publishing on topics as diverse as Irish epigraphy, biblical archaeology and the languages and history of the Near East. The son of a Professor of Anatomy at Trinity College Dublin, Macalister was born in 1870 and received his early education in Ireland before the family moved to England in 1883 on the appointment of his father John Macalister as Professor of Anatomy at Cambridge. The younger Macalister studied in Cambridge and Germany before returning to Ireland in 1895. It was around this time that his talents as an author began to emerge, beginning with a publication on the development of ecclesiastical vestments

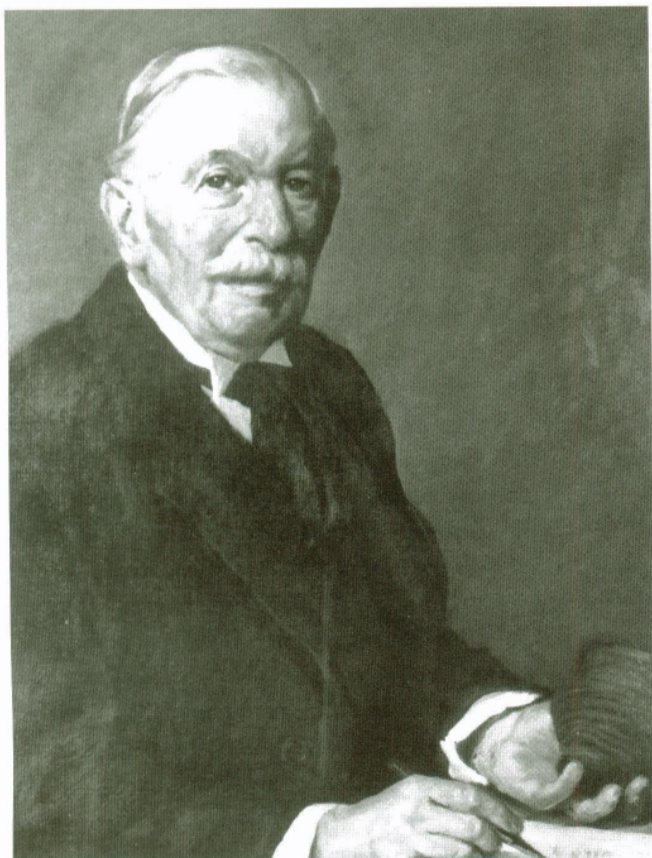


Fig. 1—R.A.S. Macalister (photo: Royal Irish Academy).

(1896) and the first of his studies in Irish epigraphy (1897). There was also an Irish-language essay describing contemporary student antics in Cambridge (1898). His interest in archaeology is reflected in a successful application to the Royal Irish Academy for funds to conduct an archaeological survey near Sleah Head on the Dingle Peninsula (Macalister 1899) and an unsuccessful application in 1897 for the post of superintendent in the new National Museum, a position secured by the more established George Coffey (Waddell 2005, 192). By 1898 Macalister had secured a position with the Palestine Exploration Fund (PEF), thus opening a new chapter in his life and an opportunity to establish his international reputation.

The PEF had been established in 1865 with a view to uniting British interests in the exploration of Palestine. It was the first foreign archaeological institute in Palestine and was established against a background of competing national (mainly French and British) and religious (Catholic and

Protestant) interests in the hunt for authentic biblical locations (Stritch 2006, 152–3). The first president of the PEF was the archbishop of York, and Freemasonry was one of the strong common strands in its early funding and personnel. A significant underlying theme in what was seen to be a noble cause was a determination to secure the stake of Britain in the archaeological rediscovery of Palestine, the cradle of Christian civilisation. From the beginning, there was a special interest in mapping Palestine and excavating the antiquities around Jerusalem. Ominously, in the context of persistent popular rumour about Macalister's excavation techniques in the following decades, one of the early leaders was Lieutenant Charles Warren, a member of the Royal Engineers and an expert in military mining. By 1897, the southern perimeter of the ancient city of Jerusalem had been defined and many associated structures noted (Davies 1988). Attention now turned to a number of tells south of Jerusalem, and it was in this context that Macalister was employed by the PEF, initially as an assistant to the American scholar F. J. Bliss.

By 1900 Macalister had become director in his own right and his major excavations took place at Tel el Jezari, identified 'with the Gezer of the Bible and other ancient records' (unpublished letter from R. A. S. Macalister 'To My Dear Friends', 22 June 1902, now in a private collection). The potential of these occupation mounds as reservoirs of information about the distant past had been revealed by Schliemann's investigations at Hissarlik (1870–90), and the value of artefacts in providing an incipient chronological framework for the successive layers had been unlocked by Petrie's then recent endeavours at Tell el-Hesi, based on a clever linkage between pottery typology, tell stratigraphy and Egyptian dynasties (Daniel 1975, 175–6). It is no coincidence that, in the first decade of the twentieth century, while Macalister was excavating at Gezer near Jerusalem, Sir Arthur Evans was investigating the tell site at Knossos on the island of Crete, and Christos Tsountas was examining Sesklo in Greece.

Macalister's excavation methods were crude by modern standards. In June 1902 at Gezer, with a foreman and 50 workmen but no archaeological assistant, he was 'steadily at work from 5.30 am to 10.00 pm with breaks for meals and periodical visits to the diggings to see how things are going on' (from the letter referred to above). By contrast with Petrie's system of removing successive horizontal slices from the top of the tell, Macalister reputedly had his workmen digging successive vertical slices beginning at the edge, so

that he was unkindly credited with moving the great tell of Gezer about ten feet to one side. There have been many jibes about his field techniques, but they are partially balanced by the views of contemporaries in the Palestine Exploration Fund who, long after his return to Ireland, invited him back to excavate at the Hill of Ophel, which he did for a short time in 1923–4, having secured temporary leave of absence from UCD. Many publications flowed from Macalister's time in Palestine, beginning with the collaborative report on the excavations of 1898–1900 (Bliss and Macalister 1902) and continuing as single author (Macalister 1912; 1913; 1921a; 1925), although not always confined to archaeological topics (1906; 1914).

During his time in Palestine, Macalister did not neglect his Irish base. In volumes 28–39 of the *Journal of the Royal Society of Antiquaries of Ireland*, spanning his years with the PEF (1898–1909), a minimum of 26 papers and notes are attributed to him, usually as sole author (see Brennan 1973, 168–9). Aside from his other interests, he was a keen musician and was awarded a number of Feis Ceoil prizes in the years between 1899 and 1913 for his musical settings of well-known Gaelic lyrics. Like many of his contemporaries, he was in all probability left in an awkward situation by the controversial excavations in search of the Ark of the Covenant at Tara (1899–1902). At the time, a number of prominent individuals were simultaneously members of the Freemasons, the British-Israelites, the Royal Irish Academy (RIA) and the Royal Society of Antiquaries of Ireland (RSAI) (Carew 2003, 45). Sir Robert Cochrane, for example, who was the Inspector of Ancient and National Monuments at the Board of Works, Honorary General Secretary of the RSAI, a member of the RIA, a Freemason and an associate member of the British-Israelite Association of London, was the person who proposed Captain Joshua Fielding, a prominent British-Israelite, for membership of the RSAI and the RIA. On the other hand, Cochrane campaigned tirelessly to stop the digging at Tara and was scolded by Charles Groom, in charge of the excavations, to remember his 'obligations to masonry' (*ibid.*, 7). Macalister is not known to have been in the British-Israelite Association, but he was a member of the RIA and RSAI and also a Freemason (*ibid.*, 123). Although never one to shrink from expressing his views, his absence overseas may have been a blessing, forestalling personal dilemmas around the Tara issue. The shared ideas underlying the enterprises of the Masons and British-Israelites at the time are best appreciated in an advertisement placed in the *Banner of Israel* issue of 16 May

1877 requesting donations to the 'Tara Exploration Fund' (*ibid.*, 5), an unmistakable echo of the Palestine Exploration Fund. In Ireland, on the other hand, this was the era of the Gaelic revival and literary renaissance. Amongst those campaigning against Groom's excavations at Tara were Maud Gonne, Arthur Griffith, W. B. Yeats, George Moore and Douglas Hyde. It is not an exaggeration to suggest that the competition to 'own' the biblical past in Palestine was mirrored in the competing claims to Tara. Macalister was proficient in the Irish language, as noted earlier, and his letter from Gezer in 1902 mentions his efforts to keep up the language. In later years, sometimes in collaboration with Eoin MacNeill, he would translate medieval texts, notably *An Leabhar Gabhála*, the Book of Invasions (Macalister 1938). His writings, especially during the first decade after independence, suggest that he was unequivocally on the side of the new cultural climate: 'Time was when some of us were taught not only to look upon ourselves as aliens in our own native land, but even to glory in so being, and to anticipate with craven terror any political change would "dealienize" us' (Macalister 1928, xii). His emphasis on Irish-language versions of place-names irked some of those who viewed cultural matters through a different prism (Evans 1951). In any case, Macalister's ultimate judgement on the damage perpetrated at Tara is reflected in his characteristically hyperbolic description of the British-Israelites as 'an abortion begotten of unscholarly ignorance of the nature of the Biblical historical record, upon unbridled national bumptiousness' (Macalister 1931, 32).

Even as he established his name with the Palestine Exploration Fund, his heart seems to have been in Ireland. In a 1908 letter from Palestine, he wrote: 'Though excavating in Palestine has its charm I have been thinking for some while that it is time some less unsettled, and more lucrative job should come my way' (letter to Goddard H. Orpen, December 1908). In the same letter he claimed that he had been offered a chair in Arabic at an Indian university. These musings were presumably related to the employment possibilities arising from the establishment of the National University of Ireland in 1908. In due course, echoing the title held by O'Curry some 50 years earlier, a University College Dublin chair in Archaeology and Early Irish History was advertised. Another of Macalister's letters, this one penned in July 1909 (letter to Goddard H. Orpen, Orpen Papers, NL MS 17,783, cited by Godden 1993, 9), betrays his mixture of anticipation and anxiety about his application. In the event there were two outstanding

candidates, and the university capitalised on the situation by appointing Macalister to a chair in Celtic Archaeology and Eoin MacNeill to a chair in Early Irish History (McCartney 1999, 68; Waddell 2005, 199, note 24).

Macalister's UCD years (1909–43)

At the time of Macalister's appointment, the leading scholar in Irish archaeology was George Coffey (1857–1916) in the National Museum of Ireland, whose authoritative papers setting Irish prehistory in a European framework had been appearing annually in the *Transactions* and *Proceedings* of the Royal Irish Academy and the *Journal of the Royal Society of Antiquaries of Ireland*, and were soon to be synthesised in two memorable volumes (Coffey 1912; 1913). Others, notably Thomas J. Westropp, were learned antiquarians of exceptional ability who excelled primarily in descriptive work. After Coffey's death in 1916, Macalister took centre stage as intellectual leader of Irish archaeology and remained unchallenged until the centre of gravity shifted back towards the National Museum in the 1930s.

Macalister has been described as 'the first to initiate archaeological excavation on a significant scale' (Waddell 2005, 196). In 1911, accompanied by Robert Lloyd Praeger, E. C. R. Crawford and two labourers, he excavated eight passage tombs at Carrowkeel, Co. Sligo, in twelve working days over a period of several months. These expeditions have become the subject of mythology, cited by some as examples of all that was worst in Macalister's excavation techniques. Waddell's judgement is kinder (2005), and we can judge the results for ourselves in the ensuing publication (Macalister *et al.* 1912) and the material in the National Museum. Other significant excavations undertaken by Macalister included, with Praeger, a number of seasons at Uisneach, Co. Westmeath, beginning in 1925 (Macalister and Praeger 1928), and, assisted by several younger archaeologists, explorations around the perimeter of the great tumulus at Knowth (Macalister 1943). The bibliography of his published work, testament to his indefatigable intellectual energy, refers to several other excavations (see Brennan 1973).

In 1915–16 Macalister delivered a series of public lectures on the Neolithic and Bronze Age, published in *The Irish Monthly* and more famously synthesised in his book *Ireland in pre-Celtic times* (1921b; Waddell 2005, 193). Another series, on Celtic Ireland, was intended to generate

another book, which never appeared, being overtaken by his best-remembered volume, *The archaeology of Ireland* (Macalister 1928). This is a recurring trait in Macalister's bibliography: a sprinkling of entries bearing the prefix 'Preliminary' or the rider 'Part 1', most of which did not lead to further productions in the intended series. Thus *A textbook of European archaeology 1* (Macalister 1921c), based on lectures dealing with the Palaeolithic, was intended to be the first in a four-part series that was discontinued after volume 1. Since Macalister's explanatory framework relied heavily on the pioneering work of Oscar Montelius, whom he greatly admired, his abandonment of the *Textbook* project might in part be linked to the emergence of newer types of syntheses, notably that of Childe (1925). Macalister's *Archaeology of Ireland* (1928) was a more enduring contribution because it was the first attempt to deal comprehensively with the topic and, aside from Raftery 1951, the next comprehensive synthesis would be that of Herity and Eogan (1977; see O'Sullivan 1997, 131–2), 50 years later. Beyond that, its importance in the history of Irish archaeology is twofold: (i) it created the framework for later syntheses down to modern times, and (ii) it was published just before the intensive phase of excavations in the 1930s. Establishing a template for those that came after, including Waddell (1998), Macalister (1928) begins with a brief history of Irish archaeology and introduces themes that are echoed in later syntheses (see O'Sullivan 1997, 133). There is irony in its enduring value because the archaeological data on which it relied were to be heavily augmented in the decade after its publication, arising from a combination of beneficial circumstances: Adolf Mahr's arrival at the National Museum of Ireland (1927), the Harvard Archaeological Expedition in the 1930s, the provision of state funding for archaeological excavations beginning in 1934, and the emerging contribution of E. Estyn Evans and Oliver Davies in Belfast. Macalister's text provides a reliable benchmark against which to measure the significance of these developments. Stone Age pottery, for example, 'excessively rare in Ireland' with only two pieces to be seen in the Royal Irish Academy collection (Macalister 1928, 87), was to be found in abundance during the excavations of the 1930s (Mahr 1937, 338). All of these enduring strengths of the volume are over and above what Macalister had in mind. One of his priorities was to demonstrate the potential of archaeology as a corollary of history and legend in building an understanding of ancient Ireland. The evangelising dimension of this goal is difficult to comprehend today, but

may be appreciated from Seán P. Ó Ríordáin's diplomatic efforts a quarter of a century later to correct the prevailing mythological interpretations of Tara (1957, 13).

Macalister's prodigious output across a range of subjects is all the more remarkable when set against the upheavals through which he had lived during his first fifteen years in UCD. At the time, by comparison with today, UCD was a tiny institution, located in cramped spaces along St Stephen's Green and Earlsfort Terrace. Eoin MacNeill, Professor of Early Irish History, was leader of the Irish Volunteers when the Easter Rising broke out in 1916, St Stephen's Green being one of the key flashpoints. Thomas McDonagh, another UCD academic and a signatory of the Proclamation read out by Patrick Pearse, was executed after the rising, and MacNeill was interned. MacNeill's post in UCD was kept open during this time but his salary was not paid, and it is remembered that Macalister, along with Osborne Bergin, gave part of his UCD salary for the upkeep of MacNeill's family. Eoin MacNeill was a member of the first Dáil (elected 1918) and became a government minister in the early years of the state. Macalister was now close to the centre of political power and in a prime position to advance the interests of archaeology. Just as the new state, in the spirit of the times, began to promote archaeology as an important means of understanding the roots of the Irish nation, Macalister, serving overlapping terms as president of the Royal Society of Antiquaries of Ireland (1924–8) and of the Royal Irish Academy (1926–31), was perfectly placed to provide intellectual leadership in the translation of this goodwill into a number of positive initiatives, notably the Lithberg report on the National Museum of Ireland (1927) and the passing of the National Monuments Act (1930). Macalister was a member of the Lithberg commission and, from 1930, first chair of the National Monuments Advisory Council, a key provision of the Act.

By the 1930s, however, the National Museum was emerging as the academy of the future. When the Harvard Expedition began its fieldwork, it was based in the National Museum and, under Adolf Mahr's guidance, a pool of new Irish talent was nurtured, notably Seán P. Ó Ríordáin, Michael Duignan and Joseph Raftery. In 1936 Ó Ríordáin was appointed to the chair in University College Cork and would eventually succeed Macalister in Dublin. Duignan secured the chair in Galway (1945), and Ó Ríordáin's successor in Cork was his own protégé, Michael J. O'Kelly (appointed 1946). Joseph Raftery remained in the National Museum, serving as Keeper of Irish Antiquities for many

years and eventually as Director (1976–9). Excavation activity increased during the 1930s and important publications were emerging, especially from the Harvard Expedition and the Evans/Davies team in Northern Ireland. The National Museum published a series of annual acquisition reports (1927–36). Mahr was elected president of the Prehistoric Society in 1937, and his presidential address, a review of progress in Irish archaeology during the 1930s, confirmed his status as the new spokesman for Irish archaeology abroad (Mahr 1937). The Second World War broke out two years later and Mahr's Nazi sympathies left him isolated overseas, but Macalister was now almost 70 years of age and the process of re-energising Irish archaeology after the war fell to his successor, Seán P. Ó Ríordáin.

References in *The archaeology of Ireland* (1928) indicate that Macalister was keeping abreast of international developments and had read Childe's classic, *The dawn of European civilization* (1925). Although less well known, his *Ancient Ireland* (1935) is a fascinating insight into his efforts to keep up to date. In the introduction, he notes that he had adopted a museum approach in *The archaeology of Ireland* but was adopting an anthropological approach in *Ancient Ireland*. This may have been in part a response to the overtly anthropological goals of the recently arrived Harvard Expedition, but the chapter titles suggest that it may have been equally coloured by Childe's *Dawn* (e.g. 'The Men of the Halberd', 'The Men of the Sword', 'The Men of Iron' etc.). He wrote that his aim was to work back through the artefacts to the men who made them, and to reconstruct the conditions in which they lived. As surveyed by Godden (1993, 113–34), contemporary reviews of this volume by non-archaeologists were scathing and culturally defensive. Some of the criticism was an understandable response to Macalister's typically provocative opinions, but there are enough loaded comments in the volume itself and the criticisms it received to suggest that he was now backed into stances he would not have embraced ten years earlier. No longer 'one of us', he had become 'one of them', as if Mahr's efforts to marginalise him professionally coincided with an emerging suspicion in public life directed at individuals whose ethnic and religious background diverged from the norm.

In spite of his age, Macalister directed an excavation at Knowth in 1941, in association with Joseph Raftery, Michael Duignan, Estyn Evans and Harold Leask, amongst others. At the end of his Knowth report, he placed on record an excavation he had conducted at Newgrange in 1928

(Macalister 1943). His *modus operandi* was the same in both cases, as illustrated by his summary of the Newgrange campaign: 'We began at stone No. 1 and worked round right-hand-wise till we had exposed 54 stones' (*ibid.*, 150). Although not as dramatic as his reputed Gezer and Carrowkeel techniques, this was in stark contrast to the geometrical grid system pioneered by Mortimer Wheeler and even then being adopted as standard procedure by younger colleagues such as Ó Ríordáin. Retiring from UCD in 1943, Macalister continued to publish during the 1940s, returning to a favoured topic with two volumes entitled *Corpus inscriptionum insularum Celticarum* (1945; 1949a). In 1949, taking account of new data and the ideas developed by Evans and Mahr, he published a considerably revised edition of his *Archaeology of Ireland* (1949b), which did not receive the acclaim of the first edition (Evans 1951). Macalister died in April 1950 and his remains were interred in the family plot near Cambridge, where a cross with intertwined Celtic-style motifs bears the simple inscription 'Robert Alexander Stewart Macalister'.

Macalister, who was born in the year Schliemann began excavating at Hissarlik (Troy) and died shortly after Libby published his first radiocarbon dates, had a publishing career that spanned more than half a century. A partial list of these publications, running to 253 entries, is to be found in Brennan 1973, supplemented by eleven additional references in de hÓir 1993 and at least 167 publications on the Near East that were known to Brennan (1973). He was an intellectual giant with an interest in several disciplines, who had many friends and collaborators in the field and was universally recognised as a 'character'. Although criticised for his excavation techniques and optimistic interpretations of inscriptions, his contribution to Irish and Near Eastern scholarship was immense. Aspects of his life, personality and achievements are explored in an unpublished thesis by David P. Godden (1993), and his death led to informative obituaries and retrospectives (e.g. Leask 1950; Evans 1951). Many years later, he was still being remembered as a slightly quixotic figure (Mitchell 1990, 244–5), and it was left to John Waddell (2005, 192–7) to provide some balance by highlighting the contributions Macalister had made in his prime during the early decades of the twentieth century.

Archaeology in UCD after Macalister

Seán P. Ó Ríordáin (1905–57), Macalister's successor in

UCD, was appointed in 1943, having previously held the chair in his *alma mater*, University College Cork (1936–43). A mature student, Ó Ríordáin had begun studying at night while serving as an apprentice and then a teacher in Cork, and by 1931 had won the travelling studentship in Archaeology. This enabled him to travel overseas, and on his return to Ireland he gained further experience in the National Museum while completing and publishing his Ph.D (Ó Ríordáin 1937). Ó Ríordáin is best remembered as a field archaeologist whose exemplary excavation reports were required reading for undergraduate students long after he died. He differentiated unequivocally between field and desk archaeology, and made clear his view that the area requiring most investment after the Second World War was field archaeology (Ó Ríordáin 1944, 478). In word and deed, however, he saw the publication of excavation results as an inextricable part of the excavation process. His best-remembered work of synthesis, *Antiquities of the Irish countryside* (first published in 1942), is both a product of extensive field research and a reflection of his passionate interest in the dissemination of archaeological information to a wider audience. Otherwise, Ó Ríordáin left his imprint on Irish archaeology through a series of major excavation projects, notably at Lough Gur and Tara, and the formation he provided to the generation who dominated Irish archaeology in the decades after his death, many of whom are to be seen in photographs from his summers in Tara. It was also during his tenure, in 1948, that the eminent art historian Françoise Henry joined the department and began to assemble her famous archive of medieval Irish art. By the mid-1950s he had another assistant in Máire McDermott. He is deservedly regarded as one of the key figures in the history of Irish archaeology, but it is sometimes forgotten that he was still in his early fifties when he died in 1957 following a relatively brief illness, and we can only speculate on the contribution he would have made into the mid-1970s had he lived to the normal retirement age of the time.

If Macalister, as distinct from Ó Ríordáin, had an intellectual heir in Irish archaeology, it was Eoin MacWhite (1923–72), a brilliant Celtic Studies graduate in the early 1940s (O'Sullivan 1998). Leaving UCD in 1944 with a first-class honours BA and MA, MacWhite travelled overseas on the NUI travelling studentship and quickly began to build an international reputation, publishing his seminal rock art paper (1946a), and writing and defending his Ph.D thesis in Spanish for the University of Madrid (conferred 1947). Back in Ireland his archaeological ambitions were stillborn. All

three NUI chairs had been filled during the previous few years and there was no obvious opening in prospect. In 1947 he attained first place in the examination to enter the Department of External Affairs and was assigned to a succession of overseas trade missions during the following decade. Throughout his early years of exile from full-time archaeology, he continued enthusiastically to review archaeological books and, as recounted by Waddell (2005, 221–2), provoked controversy in 1952 when he publicly questioned the decision to investigate Tara. He suggested that no Irish archaeologist had the necessary skill for the task, an intervention that was interpreted as a clumsy attack on Seán P. Ó Ríordáin, Macalister's successor in UCD. In any case, Ó Ríordáin's singular capabilities as an excavator were endorsed by the eminent Gordon Childe amongst others. In light of this episode, it is worth recording that Childe subsequently provided a letter in support of MacWhite's application to succeed Ó Ríordáin in 1957, in which he highlighted MacWhite's exceptional achievements and finished with an extraordinary statement: 'I think I know the field in Ireland pretty thoroughly and I am—regretfully—convinced that MacWhite is the only citizen of the Irish Republic of his generation who could possibly be considered worthy to succeed Prof. Ó Ríordáin' (MacWhite archive). Child's encomium, although insensitive and presumably not intended to convey irony, had its merits: MacWhite had been publishing since his days as a student in UCD and had expanded his international profile considerably during his time abroad (1944a; 1944b; 1946b; 1947; 1951). He had also written on the theory of archaeological interpretation, a unique departure for an Irish archaeologist of those decades (MacWhite 1956). Having failed to win the UCD chair in 1957, MacWhite soon became a diplomatic high achiever, rising to become Irish ambassador to Australia and later the Netherlands. He died in a car accident in 1972, before his 50th birthday, his potential, like Ó Ríordáin's, only partially fulfilled.

The contest to find a successor for Ó Ríordáin in 1957 featured a strong field of Irish candidates. Ruaidhrí de Valera (1916–78) was appointed, and he went on to oversee significant expansions in staff and student numbers, as well as the transfer of the department from Earlsfort Terrace to the Belfield campus. Younger scholars joined as the staff grew during the following decade—Rhoda Kavanagh, Michael Herity, George Eogan, Seamus Caulfield and Barry Raftery—and their subsequent impact is testament to de Valera's qualities as an academic mentor. In 1965, UCD

awarded Françoise Henry a chair in the History of European Painting, and the department she nurtured during the following decade until her retirement was the forerunner of the current UCD School of Art History and Cultural Policy. All those taken on by de Valera during his years in the chair are now retired, including Hilary Richardson, who took Françoise Henry's place as archivist in the Department of Archaeology and has continued to publish long after retiring in the early 1990s.

De Valera, like MacWhite, had an undergraduate background in Celtic Studies at UCD and had spent a year as a lecturer in Old Irish and Welsh at Maynooth (1942–3) before returning to UCD for postgraduate studies. His father, Éamon de Valera, famously represented the County Clare constituency in Dáil Éireann (the Irish parliament), which may provide a context for the theme of de Valera's MA thesis, 'The megalithic tombs of north-east Clare' (1945). In 1946 Ruaidhrí de Valera was appointed Placenames Officer in the Ordnance Survey of Ireland, the title 'Archaeology Officer' was added in 1947 and he became director of the newly established Megalithic Survey of Ireland in 1949. Although he had already begun to publish (e.g. de Valera 1949), he now began to convert his field knowledge of megalithic tombs into a succession of authoritative contributions, beginning with papers on the court tombs of north county Mayo (de Valera and Ó Nualláin 1950; de Valera 1951) and leading ultimately to the first four volumes of the Megalithic Survey of Ireland (de Valera and Ó Nualláin 1961–82). His success in securing the UCD chair in 1957 appears to have galvanised his publication output over the following decade. In addition to the first two Megalithic Survey volumes, he produced his extensive study of the court cairns of Ireland (de Valera 1960), followed by a vigorously argued paper on megaliths and the Neolithic of Britain and Ireland (de Valera 1961) and a study of transeptal court cairns (de Valera 1965). During this time, he also spent a long season completing Ó Ríordáin's excavation at the Mound of the Hostages, Tara (summer 1959). This seems to have been the fulfilment of a moral obligation rather than a core ambition, and the analysis of the Tara material was left to younger colleagues (see O'Sullivan 2005). Although de Valera participated in other excavations (e.g. Ó Ríordáin and de Valera 1952), his greater strength lay in field survey. He participated energetically in debates about the origins and spread of megalithic tombs, sensing latent colonial undertones in the views held by colleagues in Britain and Northern Ireland, and the combination of his

strongly argued intellectual convictions and his distinctive surname left him open to the charge of having a nationalist bias. He had not travelled extensively in his formative years, in the manner of Macalister and Ó Ríordáin, or indeed MacWhite, and was fashioned by a different type of experience, serving time in the army during the Emergency (1940–2) and spending ten years in the Ordnance Survey of Ireland. As professor and head of department, de Valera was enormously popular with his staff and students at UCD. He was a droll but thorough and inspiring teacher who seemed to enjoy the intellectual sparring generated by his views. Like Ó Ríordáin, he failed to reach retirement age, dying suddenly at the age of 62 while attending a conference in the autumn of 1978.

In 1979 de Valera was succeeded by George Eogan, who does not need any introduction here and whose international stature and contribution are well reflected in the volume of essays presented in his honour (Roche *et al.* 2004). In 1997 Professor Eogan was succeeded by Barry Raftery, in whose honour the current volume is prepared. Both Eogan and Raftery made it their business to garner extensive international experience while acting as highly respected ambassadors for Irish archaeology abroad. George Eogan's research interests span the Neolithic and Bronze Age, especially megalithic tombs and metalwork respectively, and Barry Raftery's primary focus is the late Bronze Age and Iron Age, especially as manifested in hillforts and La Tène metalwork respectively. In the 1980s Raftery was a pioneer in the study of archaeological material in the raised bogs of the Irish midlands. His outstanding intellectual and personal qualities are well known, and his immensely popular *Pagan Celtic Ireland* (Raftery 1994) and the recognition of the department as a School of Archaeology (established 2005) in the new university structure are immediately obvious legacies.

Macalister and Raftery held the chair in different circumstances. By contrast with today, Macalister was effectively a lone operator in pedagogical terms, and his research collaborators were in other disciplines or other countries. At the beginning of Macalister's tenure in the chair, the number of full-time professional archaeologists in Ireland could be counted on one hand. By 2007, partly owing to the foundations Macalister laid but driven most of all by the rapid growth of a private sector over the course of Barry's career, there were approximately 1,500 professional archaeologists on the island. What both shared was a deep respect for the archaeological evidence, a readable yet

accurate writing style, a much-admired lecturing style enriched with soaring oratory, and an interpretative approach that invariably set the Irish evidence in an international context. A measure of the journey travelled by Irish archaeology during the past 80 years is the difference in their views on the Celts. Macalister, a product of his time, embraced the Celtic invasion of mythological and linguistic narratives, whereas Raftery subjects this and other ideas of Celticism to serious cross-examination based on the archaeological evidence. A feature of Macalister's career was that his promptings played a role in the development of scientific field techniques in Ireland, which would allow posterity to smile wryly at his own shortcomings in this area. A feature of Barry's career is that he has had the confidence to stoke and release the diverse intellectual energies of his colleagues in UCD Department of Archaeology, even if in the process it challenged some of his own archaeological principles. The intellectual energy that has been generated by the developments in staff, teaching and research that facilitated the establishment of the School of Archaeology is both a testament to Barry Raftery's leadership at a critical time in the late 1990s and a fulfilment of the vision shown by Macalister and those who appointed him in 1909.

References

- Bliss, F.J. and Macalister, R.A.S. 1902 *Excavations in Palestine 1898–1900*. London. Palestine Exploration Fund.
- Brennan, M.L. 1973 Robert Alexander Stewart Macalister 1871–1950: a bibliography of his published works. *Journal of the Royal Society of Antiquaries of Ireland* 103, 167–76.
- Carew, M. 2003 *Tara and the Ark of the Covenant*. Dublin. Discovery Programme/Royal Irish Academy.
- Childe, V.G. 1925 *The dawn of European civilization*. London. Kegan Paul.
- Coffey, G. 1912 *New Grange and other incised tumuli in Ireland*. Dublin. Hodges Figgis.
- Coffey, G. 1913 *The Bronze Age in Ireland*. Dublin. Hodges Figgis.
- Daniel, G. 1975 *A hundred and fifty years of archaeology*. London. Duckworth.
- Davies, G.I. 1988 British archaeologists. In J. F. Drinkard, G. L. Mattingly and J. M. Miller (eds), *Benchmarks in time and culture: an introduction to Palestinian*

- archaeology*, 35–62. Georgia. Scholars Press.
- De hÓir, S. 1993 Additions to the bibliography of R. A. S. Macalister in the Society's Journal 103 (1973, 167–76). *Journal of the Royal Society of Antiquaries of Ireland* 123, 170.
- De Valera, R. 1949 Seán Ó Donnabháin agus a lucht cúnta. *Journal of the Royal Society of Antiquaries of Ireland* 79, 146–59.
- De Valera, R. 1951 A group of 'horned cairns' near Ballycastle, Co. Mayo. *Journal of the Royal Society of Antiquaries of Ireland* 81, 161–97.
- De Valera, R. 1960 The court cairns of Ireland. *Proceedings of the Royal Irish Academy* 60C, 9–140.
- De Valera, R. 1961 The 'Carlingford Culture', the long barrow and the Neolithic of Great Britain and Ireland. *Proceedings of the Prehistoric Society* 27, 234–52.
- De Valera, R. 1965 Transeptal court cairns. *Journal of the Royal Society of Antiquaries of Ireland* 95, 5–37.
- De Valera, R. and Ó Nualláin, S. 1950 The megalithic tombs of the island of Achill. *Journal of the Royal Society of Antiquaries of Ireland* 80, 199–227.
- De Valera, R. and Ó Nualláin, S. 1961–82 *Survey of the Megalithic Tombs of Ireland*, vols I–IV. Dublin. Stationery Office.
- Evans, E.E. 1951 R. A. S. Macalister and the archaeology of Ireland. *Ulster Journal of Archaeology* (3rd ser.) 14, 2–6.
- Godden, D.P. 1993 R. A. S. Macalister: a paradox in the scientific discipline of archaeology. Unpublished MA thesis, Saor-Ollscoil na hÉireann, Dublin.
- Herity, M. 1967 Eugene O'Curry's early life: details from an unpublished letter. *North Munster Antiquarian Journal* 10, 143–7.
- Herity, M. and Eogan, G. 1977 *Ireland in prehistory*. London. Routledge.
- Leask, H. 1950 Obituary of R. A. S. Macalister. *Journal of the Royal Society of Antiquaries of Ireland* 80, 269–70.
- Macalister, R.A.S. 1896 *Ecclesiastical vestments: their development and history*. London. Stock.
- Macalister, R.A.S. 1897 *Studies in Irish epigraphy*, vol. 1. London. Nutt.
- Macalister, R.A.S. 1898 Note. *Irishleabhar na Gaedhilge* 8 (1897–8), 100–2.
- Macalister, R.A.S. 1899 On an ancient settlement in the south-west of the barony of Corkaguiney. *Transactions of the Royal Irish Academy* 31, 335.
- Macalister, R.A.S. 1906 *Bible side-lights from the mound of Gezer*. London. Hodder.
- Macalister, R.A.S. 1912 *The excavation of Gezer* (3 vols). London. J. Murray for the Palestine Exploration Fund.
- Macalister, R.A.S. 1913 *The Philistines: their history and civilization*. London. Milford.
- Macalister, R.A.S. 1914 *The language of the Nwar or Zutt, the nomad smiths of Palestine*. Edinburgh. Bernard Quaritch.
- Macalister, R.A.S. 1921a *A history of civilization in Palestine*. London. The University Press.
- Macalister, R.A.S. 1921b *Ireland in pre-Celtic times*. Dublin and London. Maunsell and Roberts.
- Macalister, R.A.S. 1921c *A textbook of European archaeology I*. Cambridge University Press.
- Macalister, R.A.S. 1925 *A century of excavation in Palestine*. London. Religious Tract Society.
- Macalister, R.A.S. 1928 *The archaeology of Ireland*. London. Methuen.
- Macalister, R.A.S. 1931 *Tara: a pagan sanctuary of ancient Ireland*. London. Charles Scribner's Sons.
- Macalister, R.A.S. 1935 *Ancient Ireland*. London. Methuen.
- Macalister, R.A.S. 1938 *Lebor Gabála Éirenn: The Book of the Taking of Ireland*. Dublin. Education Company.
- Macalister, R.A.S. 1943 A preliminary report on the excavation of Knowth. *Proceedings of the Royal Irish Academy* 49C, 131–66.
- Macalister, R.A.S. 1945 *Corpus inscriptionum insularum Celticarum* (I). Dublin. Stationery Office.
- Macalister, R.A.S. 1949a *Corpus inscriptionum insularum Celticarum* (II). Dublin. Stationery Office.
- Macalister, R.A.S. 1949b *The archaeology of Ireland*. London. Methuen.
- Macalister, R.A.S. and Praeger, R.L. 1928 Report on the excavation of Uisneach. *Proceedings of the Royal Irish Academy* 38C, 69–127.
- Macalister, R.A.S., Armstrong, E.C.R. and Praeger, R.L. 1912 Report on the exploration of Bronze-Age cairns on Carrowkeel Mountain, Co. Sligo. *Proceedings of the Royal Irish Academy* 29C, 311–47.
- McCartney, D. 1999 *UCD, a national idea: the history of University College Dublin*. Dublin. Gill and Macmillan.
- MacWhite, E. 1944a The bronze socketed gouge in Ireland. *Journal of the Royal Society of Antiquaries of Ireland* 74, 160–5.
- MacWhite, E. 1944b Amber in the Irish Bronze Age. *Journal of the Cork Archaeological Society* 49, 122–7.
- MacWhite, E. 1946a A new view on Irish Bronze Age rock-

- scribings. *Journal of the Royal Society of Antiquaries of Ireland* 76, 59–80.
- MacWhite, E. 1946b Sobre algunas hachas del bronce Mediterraneo. *Cronica del II Congress del Sudeste Español, Albacete* 1, 150–2.
- MacWhite, E. 1947 Sobre unas losas grabadas en el Suroeste de la Peninsula Hispánica. *Cuadernos de Historia Primitiva* 1, 62–9.
- MacWhite, E. 1951 *Estudios sobre las relaciones Atlánticas de la Peninsula Hispánica en la Edad del Bronce*. Disertaciones Matritenses II. Madrid. University of Madrid.
- MacWhite, E. 1956 On the interpretation of archaeological evidence in historical and sociological terms. *American Anthropologist* 58, 3–25.
- Mahr, A. 1937 New aspects and problems in Irish prehistory. *Proceedings of the Prehistoric Society* 3, 261–436.
- Mitchell, F. 1990 *The way that I followed*. Dublin. Country House.
- Ó Riordáin, S.P. 1937 The halberd in Bronze Age Europe. *Archaeologia* 86, 195–321.
- Ó Riordáin, S.P. 1942 *Antiquities of the Irish countryside*. Cork University Press.
- Ó Riordáin, S.P. 1944 Post-war archaeology in Ireland *Studies* 33 (132), 475–86.
- Ó Riordáin, S.P. 1957 *Tara: the monuments on the hill*. Dundalk. Dundalgan Press.
- Ó Riordáin, S.P. and de Valera, R. 1952 Excavation of a megalithic tomb at Ballyedmonduff, Co. Dublin. *Proceedings of the Royal Irish Academy* 55C, 61–81.
- O'Sullivan, M. 1997 Review of *The prehistoric archaeology of Ireland*, by J. Waddell. *Journal of the Royal Society of Antiquaries of Ireland* 127, 131–4.
- O'Sullivan, M. 1998 Eoin MacWhite: archaeologist, scholar, diplomat (1923–1972). *Journal of Iberian Archaeology* 0 [sic], 133–42.
- O'Sullivan, M. 2005 *Duma na nGiall. The Mound of the Hostages, Tara*. Bray. Wordwell.
- Raftery, B. 1994 *Pagan Celtic Ireland: the enigma of the Irish Iron Age*. London. Thames and Hudson.
- Raftery, J. 1951 *Prehistoric Ireland*. London. Batsford.
- Roche, H., Grogan, E., Bradley, J., Coles, J. and Raftery, B. 2004 *From megaliths to metals: essays in honour of George Eogan*. Oxford. Oxbow.
- Stritch, D. 2006 Archaeology and the State. An examination of archaeological practice and official interpretation of archaeological remains in Israel and the Republic of Cyprus. Unpublished Ph.D thesis, Trinity College Dublin.
- Waddell, J. 1998 *The prehistoric archaeology of Ireland*. Galway University Press.
- Waddell, J. 2005 *Foundation myths: the beginnings of Irish archaeology*. Dublin. Wordwell.
- Woodman, P. 1984 *Seeing is believing: problems of archaeological visibility*. Cork University Press.

Newtown, Loughcrew, Oldcastle, County Meath. Cairn H, August 5–November 10, 1943

Joseph Raftery†

EDITORIAL NOTE:

The text reproduced here is the draft of an excavation report on the Cairn H passage tomb (grave) on Carnbane West in the Loughcrew passage tomb complex. The site had been investigated by Eugene Conwell in 1865 and 1868 (E. Conwell, Discovery of the tomb of Ollamh Fodhla (Dublin, 1873)) and by Edward Crofton Rotherham in the 1890s. It was excavated by Barry's father, Joseph Raftery, in 1943 and the typescript presented here forms part of his archive. He published a preliminary report on the excavation in 1953 (J. Raftery, 'Lough Crew, Co. Meath—Ein Megalithgrab der La Tène Zeit', in E. Vogt (ed.), Congrès International des Sciences Préhistoriques et Protohistoriques, Actes de la IIIe Session (Zurich, 1953)), but the full excavation report has yet to appear. Cairn H is a classic, cruciform passage tomb (grave) that would now be dated to the Neolithic period and to the centuries before 3000 BC. In the 1940s passage graves were dated to the Bronze Age, around 2000 BC. The most intriguing feature of Raftery's excavation, however, was the occurrence, following on Conwell's initial recovery of similar material, of decorated bone plaques of La Tène date which appeared to be in a primary stratigraphic position. He wrestles with this conundrum in the final section of the paper. In setting the paper in context, it is worth remembering that Cairn H was excavated the year before Barry was born and almost two decades before radiocarbon dating started to have an impact.

Introduction, topography etc.

Cairn H rests almost on the summit of the hill called Carnbane [West], which is 842 feet OD. It is in the townland of Newtown, Parish of Loughcrew, Barony of Fore, Co. Meath, OS 6" Sheet 15 [SMR ME015-003003-; NGR 257166, 277381]. Geologically, the area consists of a series of Lower Silurian rocks rising in ridges from beneath the Carboniferous Limestone which forms the basis of the land some 600 feet below the hills. The tomb was built on a slight slope on the hill, running from SW to NE (see Section from 'F' through 'H' to 'L'). The natural stratigraphy of the area

consists of: (a) Humus; (b) Brown gravel, fairly sandy; (c) Coarser grey gravel. In all cases in the excavation the level reached was the grey gravel. This represented the original subsoil and is called 'subsoil' in this report.

It is not known why this particular area was selected for Cairn H. The mound was erected on a flat surface. It was excavated on quadrant principle. In SW and SE (also in NW) there were pits in the subsoil. It was not possible to say whether these were natural or artificially excavated, but the former seems the more logical conclusion. The A–B section in NE (see Fig. 1) suggests strongly natural irregularities in the original surface of the ground. These hollows were filled in with a reddish clayey soil (Fig. 2), mixed with small sharp stones, some charcoal and a few bones (cremated). As well as some larger rounded stones were put in for filling. These are drawn on plan. The fill spread out from the hollows over a large area of the site (see sections). In most cases the red fill rested directly on the grey gravel, but in one or two places (see A–B section in NE) there was a brown to buff clayey layer, averaging 10cm in thickness, between the grey gravel and the red fill. This, it is suggested, represents the Old Turf Line (OTL) (see Fig. 1). It was not possible to trace it in all places—in fact, the usual observation was that the fill (and where that did not exist, the next layer, i.e., Clay Layer 2) rested directly on the subsoil. The suggestion is thus strong that the sod had first been removed in such cases. This agrees with the thesis that the original megalith builders wished to level their site; this they did by filling in hollows and by cutting down bumps, which was in the main achieved by taking away the turf in certain spots. In all the hollows the brown clay level was found below the fill.

In the absence of any clear evidence as to the stratigraphy inside the passage and chambers, one cannot be certain as to the exact extent of the next layer which was put down on the fill, i.e., that which we call Clay Layer 2 (see Fig. 1). (Note: Clay Layer 3 was exactly the same material as Clay 2. It was same thickness. It completely covered one of the hollows in the SW (see plan and section) and was surrounded by a ring of small stones, resting on it. The layer itself rested on the normal red fill. The exact function of Clay 3 not clear, but it appears to have been only part of the fill.)

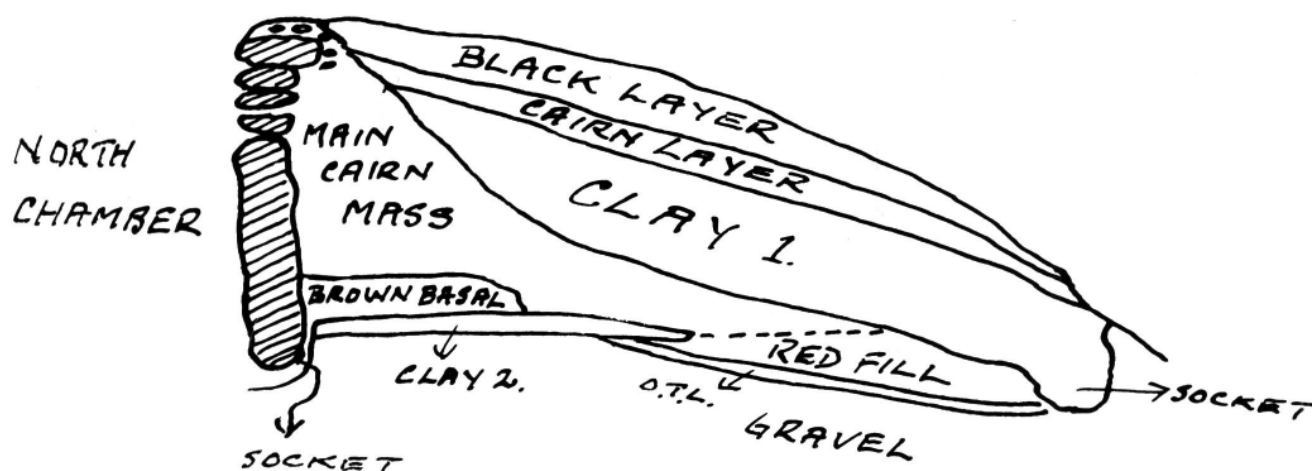


Fig. 1

Clay Layer 2

As already remarked one cannot state positively the exact extent of Clay 2, but as no traces whatsoever were found in the tomb itself the suggestion is that it did not extend over the area enclosed by the orthostats: in fact, that the general plan of the tomb proper was marked out in some way (a rough spade line would do or pegs might have been used) in the ground before Clay 2 was deposited. The red fill appears to have been so deposited as to leave an area free for the tomb, which would thus have been planned in the original turf. Extending mainly over this fill-free area, but in one or two spots overlying it and not extending over the area marked out for tomb, was deposited Clay 2. Clay 2 consisted of a layer, composed of stiff grey clay, red burnt clay and charcoal. There were a few cremated bones in it. It was very level. The next stage was the erection of the tomb. For this purpose the necessary large boulders had already been drawn into position. A trench running roughly round the marked out area was dug, its outer edge in each case being clearly delimited by the edge of Clay 2, without any admixture, clearly showing that Clay 2 had been in position when the socket-trench was dug (see Fig. 1). The stones were then levered into position and propped with smaller stones on both sides. The sockets were then filled in with soil and smaller stones. The soil filling varied. On the whole

west side it consisted of the brown clayey soil similar to that of the 'Brown Basal Layer' to be described later. On the E side of the passage it consisted of a fine dark sand with a reddish hue or of a reddish clayey soil, similar to but not as sticky as that which filled the original pits. In one case only (behind the large decorated stone on E side of passage and under dry walling to right of it, looking from passage) there were bones found in the sockets.

It cannot, of course, be stated definitely whether the stones were carved in position or not, but I believe they were for the following reasons:-

- (1) The Knowth evidence of the decoration on the Kerbstone ending at the OTL suggests its possibility.
- (2) In no place was the decoration in an inaccessible position.
- (3) There would have been sufficient light to do so before the tomb was covered in.
- (4) There would have been sufficient elbow room.
- (5) Psychologically, one would expect such to have been the case. If the stones did have a ritual or religious significance one would expect that those erecting them would not care to injure them in any way. But there would have been grave danger of that if they had been carved before erection. They might be marked by other stones or by lifting with long sticks and to get them

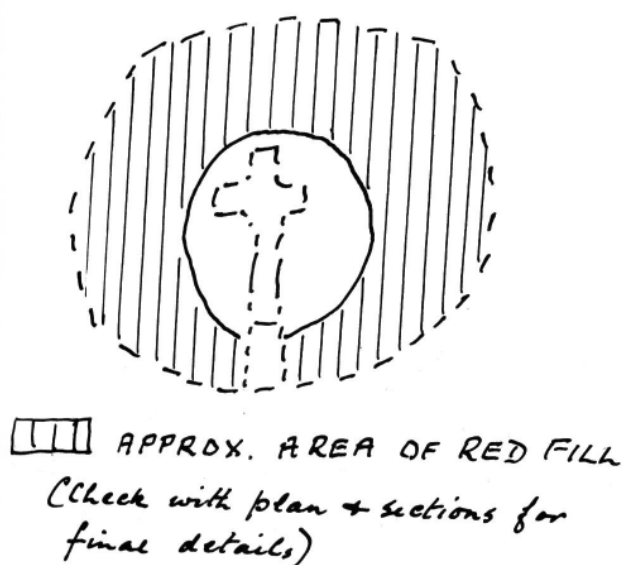


Fig. 2

into exact position with relation to their decoration would have entailed extra trouble.

Seven stones, marked X on the sketch plan, were found to be decorated (Fig. 3). One extra, marked X?, is doubtful. It displays pocking near its bottom, at level of top of stone basin.

On top of Clay Layer 2 and packed up against the outsides of the orthostats was a layer of carefully packed large rounded stones, *placed* beside and on top of each other, but not thrown anyway. These stones were packed tightly in a very tough brown clayey soil which is called the 'Brown Basal Layer' (thereafter referred to as 'Brown Basal'). This layer did not extend all over Clay 2 (see section—Fig. 1). In it at certain spots were found, scattered from c. 10cm below its top to its very bottom and (in the NE) sometimes going into Clay 2, two fragments of cremated bones, unburned bones, decorated flakes, polished flakes, sea-and-snail shells, pieces of quartz, rounded pebbles, one bronze ring, one bead, and two fragments of blue glass. These objects were found in four areas, namely in the intersections between passages and chambers, as shaded (cross-hatched) areas in appended sketch plan (Fig. 4).

The composition of the layer is shown in section (Fig. 5) approximately as:-

Shaded portion is clay; portions left white represent

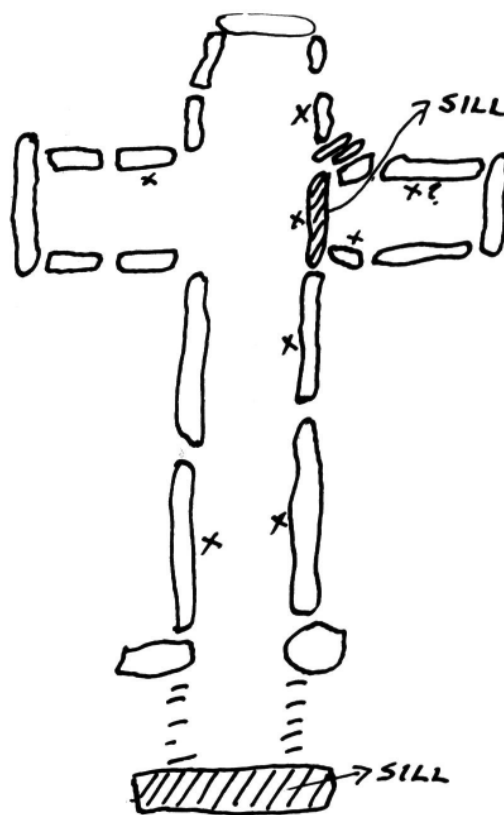


Fig. 3

stones, while blacker dots and strokes represent bones and objects. It is thus clear that bones, etc. and clay were put down together; there is no question of their having been put down in a pocket in the clay. All were mixed up, as if handfuls of bones were scattered with the clay as it went in in shovelfuls. Furthermore the positions of the bone-bearing areas in the Brown Basal suggests deliberate deposition at time of erection of the mound. A ritual meaning occurs to one. Possibly in the nature of foundation or dedicatory ceremonies. In this connection it should be stated that the flakes were broken *before* deposition; or more accurately for that purpose; one in the SW was in 2 pieces which fitted exactly. One piece *overlay* the other at an angle (Fig. 6). Thus it should also be noted that the outer edge of the cairn rested on the red fill already mentioned, and was itself battered into position with a mixture of the same reddish clay. This presumably to keep it intact and to prevent spreading.

Over this Brown Basal layer, but extending beyond it, was erected a cairn of dry stones—no earth between (Fig.

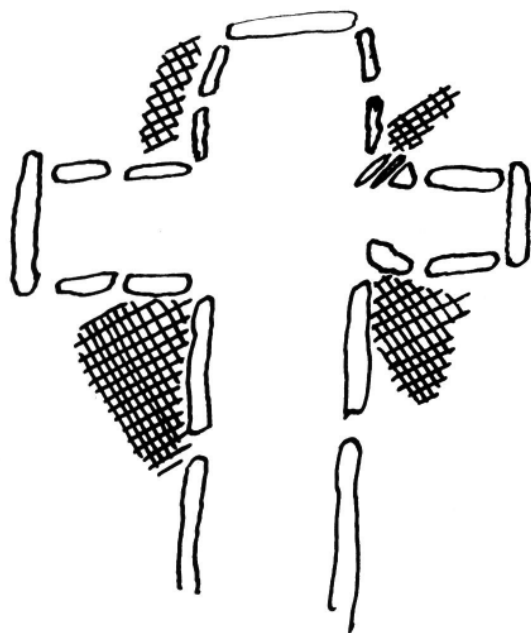


Fig. 4



Fig. 6

1). The larger stones were on the bottom and nearer the orthostats, the smaller stones higher up and on the outside. The larger stones were in the main rounded, the smaller ones quite sharply angular; they were clearly quarried or broken for the purpose required. They were covered by yellow or pink or blue fungus. The dry cairn not only acted as support for the orthostats, but was bonded in with the dry walling and the corbels of the chambers, as well as with the dry-walling of the passage where it remained. The dry cairn was presumably carried up over the upper-most corbels, and the whole represented a Cruciform Passage Grave covered by a simple cairn. This cairn, which we shall

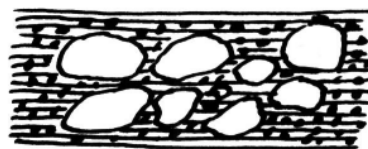


Fig. 5

call Cairn H1 for convenience's sake, was we presume surrounded by a Kerb, in fact in the main by the Kerb found by us in the course of excavation. But actual proof of this assumption is slight: the only point I can at the moment call to mind is that the fill at the entrance (between sill and Kerbstones) was kept in position on the outside by a Kerb (see Fig. 7). But this is not very strong proof.

The Kerb

The evidence with regard to the Kerb is of considerable interest. It suggests a two-period circle, though it is by no means conclusive. There are altogether some 27(?) stones remaining. When first approached only four or five were visible, their tops just showing above the grass. On excavation, however, all the Kerbstones were found, and where such were missing their sockets were easily detected. All the stones still in position leaned outwards at varying degrees, and two were even flat. All were found to have been banked upon the *outside* by stones covered by a light chocolate brown clayey soil. The only find in this exterior banking was the mortar with the decoration of incised circular lines round the top. This was found, hollow upwards, in the bank outside the Kerb at the entrance. Most

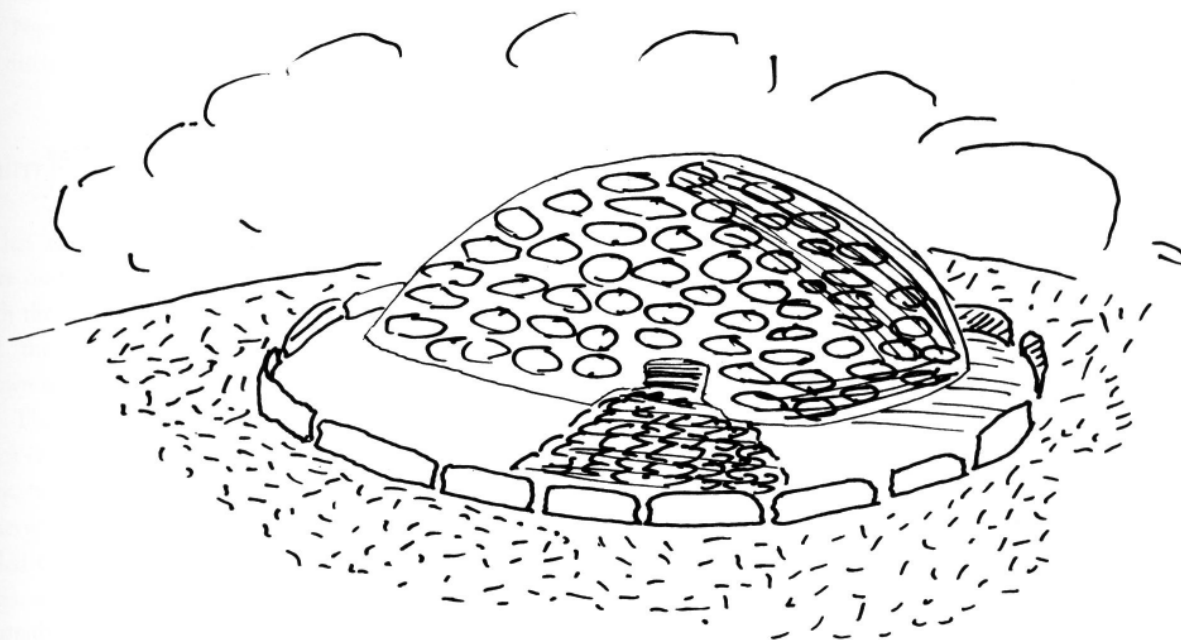


Fig. 7

of the Kerbstones rested just on, or very slightly in, the red clay fill above the gravel. Some, which were larger, had sockets dug for them into the gravel: the implication being, as the Kerb itself suggests, that the important point was to have the *tops* of the Kerb-stones at approximately the same level. Some had therefore to be sunk. Assuming then, as I think we are justified in doing, that a Kerb encircled Cairn H1 we find ourselves with a Cruciform Passage Grave, covered and surrounded by a cairn of dry stones, the whole encircled by a Kerb, which however did not act as a revetment, but ran some distance from the base of the cairn (Cairn H1—Isometric View—Fig. 7).

Thus Cairn H1 in effect was not too dissimilar in plan from the larger and better-known cairns. At Loughcrew itself D, L and T have large kerbs which *curve in at the entrance*. The same applies elsewhere to tombs of the Cruciform Passage Grave group; though at Loughcrew only those which are superficially known to be cairns (D, L and T) have incurving kerbs. The other mounds, which are grass-covered and may be pure mounds or may be half-mound, half-cairn as is H, have completely circular kerbs.

But H has one feature which in a way brings it into line with L and Newgrange, namely, the cairn itself *curves in towards the entrance*. This is seen better on plan (see Fig. 8). Here the place of the incurving Kerb is taken by an incurving cairn edge; while the Kerb here might perhaps be likened to the surrounding circle of standing stones at Newgrange. To continue the history of the Kerb: At some period subsequent to the erection of the cairn, but how long subsequent there is no evidence to indicate, a secondary rebuilding or addition became necessary. At any rate, on excavation some of the Kerbstones were found to be missing—namely 4 on the SE and one on the NE. In the case of the NE Kerb the socket was filled with Clay Layer 1 (to be described later), and a very small quantity of the red clay fill which overlies the gravel. This fill was at the bottom of the hole. In the SE all the sockets were dug (see sections) into the grey gravel. This was also case for NE. But in the SE the sockets had been filled with a mixture of earth, gravel and blue clay, and then either wholly or partly covered by Clay Layer 1. In other words the evidence allows one to infer: (a) that the stones had been taken up at the time of the addition to

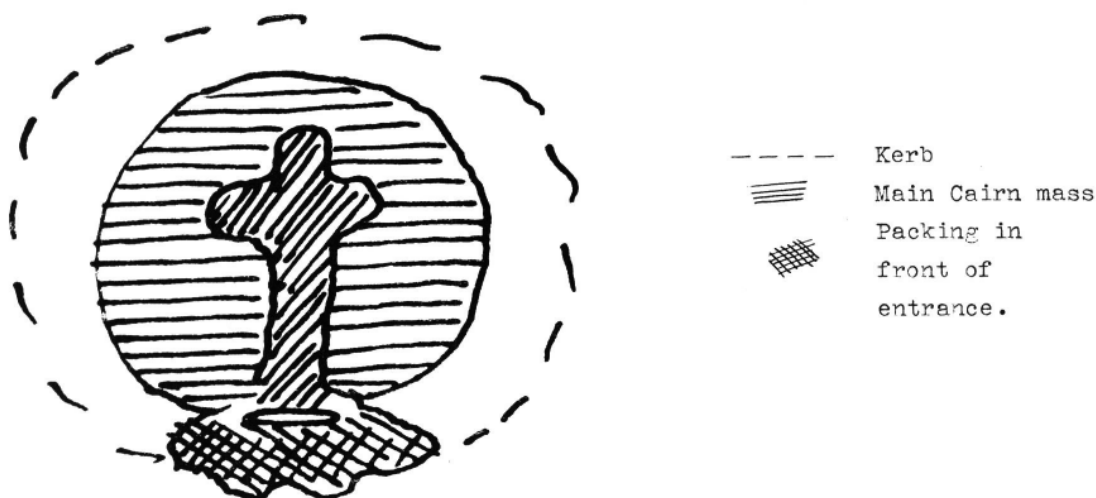


Fig. 8

Cairn H1, as there was no silting and no fill such as might have slipped in gradually; and (b) that the filling was deliberately done contemporaneously with the taking away of the Kerb stones.

In three cases in the SE the stumps of the stones were discovered at the bottoms of the sockets, showing that the stones had been broken and taken away where they could not be readily pulled out. The stumps all showed an outward slope similar but not as pronounced as that of those found *in situ*. This fact, coupled with the position of Clay Layer 1 with regard to the rest of the kerbstones, suggests strongly that all were leaning outwards when the addition to Cairn H1 was made. In fact the whole addition, or Cairn H2, as we shall henceforth call it, suggests that the H2 people were no cairn folk, that they knew little of the nature or working of stones, and that they had no great idea as to the necessity or reason for a Kerb at all. The evidence leads one to believe that they were drawn to the site by reason of its traditional sanctity or pre-eminence, and that they were mound folk rather than cairn folk, that structurally a Kerb was unnecessary and foreign to them and that they were not sufficiently conversant with the ritual significance of the Kerb (for in Cairn H1 it had no structural meaning) to want to use it in connection with their burial place and ceremonies. If they were, they would (a) surely have made the stones vertical once more, (b) would not have removed some of the Kerb stones, and (c) would not have left a gap in the SE. In fact, Cairn H2

people found Cairn H1 with almost flattened Kerb stone and erected Cairn H2 over it, sloping H2 out as a normal tumulus and covering the fallen Kerbs.

Why did they remove the Kerbstone in the SE and NE? It must at once be said that we do not know, but it is clear that they must have been used for some other purpose. They did not go to the trouble of taking away three or four stones for no reason and leaving the rest. I would therefore suggest that the stones were required for structural purposes. I would furthermore suggest, in view of the small covering on top of the tomb (and only a small layer of cairn material must have covered it to judge from the very rapid slope of the cairn mass), that the roofing had partially collapsed and that Cairn H2 folk decided to re-roof it and make the site less of a derelict ruin than it had been before they ventilated [*sic*] it. That, however, is only conjecture. But I confess that I can at the moment conceive of no other use to which good flat flags, as the Kerbstones were, might have been put. They might, of course, have been broken up for filling in with the materials of Cairn H2, but this I consider extremely unlikely because (1) the amount of stone thus acquired would be ridiculously small (about 2 barrow loads) and (2) if that were so they would in all logic have similarly broken up the rest of the Kerbstones.

The explanation of their being taken away does not explain why just *those* Kerbstones were taken and not others. In answer to that semi-objection I would suggest that those particular stones were removed when, after trial, it was

discovered that they were in fact easier to move than any of the others.

Note: decorated Kerbstone and fragment outside Kerb, see discussion below.

Cairn H2

As has already been stated, some of the Kerbstone sockets were *covered* by a layer of clay and one was actually *filled in* with the same clay. This brings us to a discussion of Cairn H2, the secondary mound. And that it was so is clearly shown by the evidence of the Kerb sockets.

The first thing the H2 people did was to lay down a thick layer of clay (very stiff, varied in colour, buff, reddish, grey, brown, mixed with burnt earth and charcoal, but otherwise sterile) over the main cairn mass of H1. This, called Clay Layer 1, did not reach to the top of the cairn mass, nor did it cover the entrance (see Fig. 9). The tomb was not placed centrally to the Kerb with the result that the space between the Cairn edge in the NE was wider than elsewhere. As a result, when erecting the tumulus H2, this area was partially filled in with layers of large stones, some actually resting on the outsloping Kerbs. These stones were covered by some clay and another layer laid down (see Fig. 1). Elsewhere this feature did not occur. On top of Clay Layer 1 was put down a layer of stones, one stone thick.

In the NE, which was the quadrant most elaborately and meticulously completed, the layer was uniform all over, but in the other quadrants (particularly in SE and SW) the layer consisted of a few stones scattered here and there on top of but not in the Clay Layers. In these latter quadrants, however, there was an outer edge of stones forming a sort of bank resting on the clay and mixed in the transposed brown gravel of the next layer to be deposited above Clay Layer 1. This, like the Clay Layer 1, did not reach the top of the cairn mass, was in places very thick and, save for a few bones and one rock crystal object, was sterile. Apart from the border of stones just described this layer was stone free in the SE, SW, and NW, but in the NE was elaborately interlarded with layers of stones. Over this gravel layer, but not concentric with the Kerb or the tomb, was deposited the Black Layer, so-called (see Fig. 1). This Black Layer ended very definitely in parts, as for instance in NE. The base of the layer was a layer of stones laid carefully and closely. This was called Stone Layer 2. The layer itself was very black and consisted completely of some form of vegetable (organic)



||||| CLAY
LAYER 1.

Fig. 9

matter. It was covered by a very thin sod only, and there were stones of varying sizes mixed through it, but none very large. It extended everywhere right up to the edges of the tomb and it seems likely that it did originally extend right across, but of this there is now no evidence. The upper one and a half feet of fill which Conwell found in the tomb may represent portion of the collapsed Black Layer, though in that case one would expect to find the corbels underlying this fill. Conwell, however, does not mention finding any, and as he was good at reporting what he saw, we may assume that they were in fact not to be found in the passage or chambers. To this we shall return in discussing the tomb itself.

Apart from the stones already mentioned, the Black Layer, from the sod down, was packed with a mass of cremated and unburnt human bones, a small quantity of animal bones, about 2,000 polished bone flake fragments, glass, amber and stone beads, bronze rings, iron objects, shells, etc., etc.

The suggestion might be made that this Black Layer represented material thrown out by Conwell, but this thesis can be discounted for the following reasons:-

- (1) Conwell himself was for his time quite a scientific worker and his reports show considerable care, acumen and attention to detail. The material which he overlooked was negligible, as we discovered when going through the fill of the passage. I do not believe that he could have missed all the great quantity of material

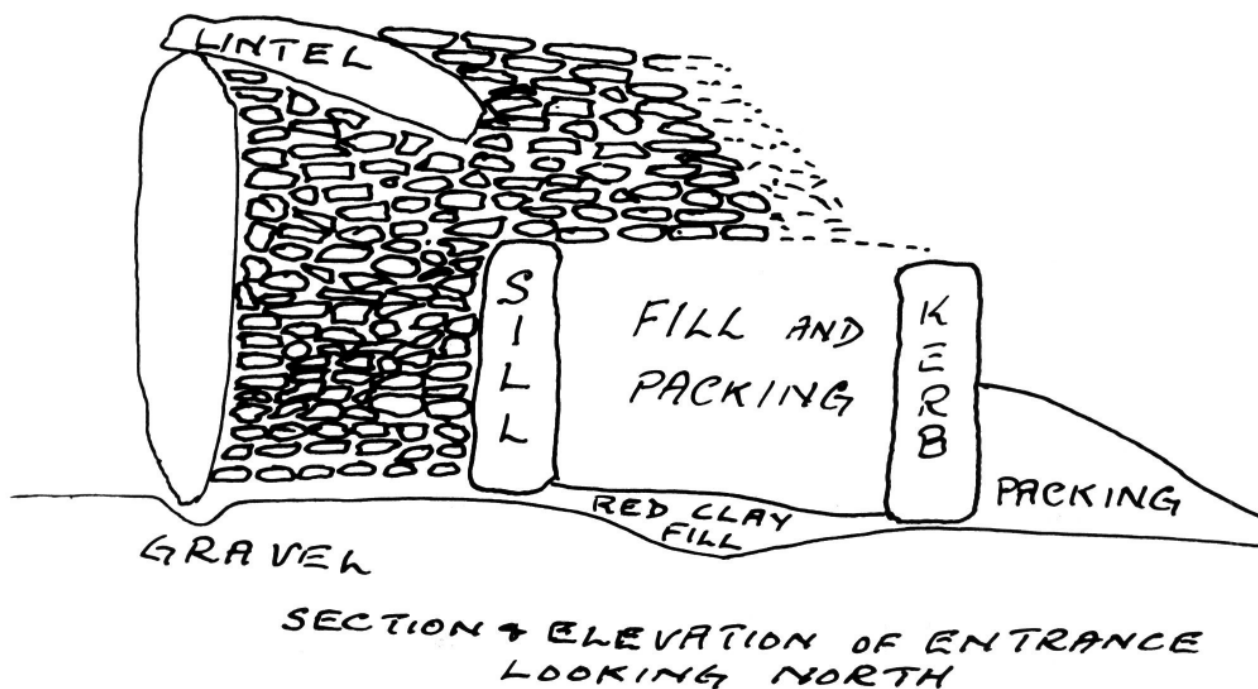


Fig. 10

which we discovered in the Black Layer.

- (2) The material he threw out was mainly the 'stiff retentive earth' which he so eloquently describes. Of this we found no trace whatsoever.
- (3) On the western side, where the Black Layer ended it was continued at a level and partly overlain by a layer of peat. This Conwell would certainly not have deposited so carefully. There was no reason at all why he should have done so and he does not mention having done it.
- (4) The whole of the Black Layer, just under the turf, was covered by a thin layer of stones, deliberately placed in position. Again, Conwell would have no reason to do this.

In fact, it is clear that Black Layer is the reason for the secondary mound: it was the burial ground. Stone Layer 1 was probably to 'top it off', to use a vulgarism, and possibly also to give it a cairn-appearance, possibly to conform with other cairns in the locality, such as D and L, and possibly also in deference to a tradition vaguely remembered by a tumulus-people of the sanctity or efficacy of a cairn.

The cremated bones were broken into quite small

fragments and the unburned bones were also broken into small fragments, and some of the fragments were found in such juxtaposition as to suggest that the bones might have been deposited whole. In other words they must have been devoid of flesh, and broken up, before they were placed on top of the mound. The bones, flakes and other objects were all over the mound, but more particularly in the NE—the quantity of bones from the NE alone was about four times that from the other three quadrants combined. It was not possible to determine any definite pockets—or areas of bones—they were just scattered over the whole of the Black Layer. They might thus represent deposits made from time to time, the number eventually accumulating to such an extent that any distinction between individual burials was automatically destroyed; or again that the deposits might represent only a limited number of burials, or the theory that burials took place only at infrequent stated intervals, and with certain ceremony. This is most likely the case if the cemetery group can be equated reasonably with Aonach Tailteann. But in any case it appears to be the theory having most to recommend it: it would explain the scattering of the unburnt

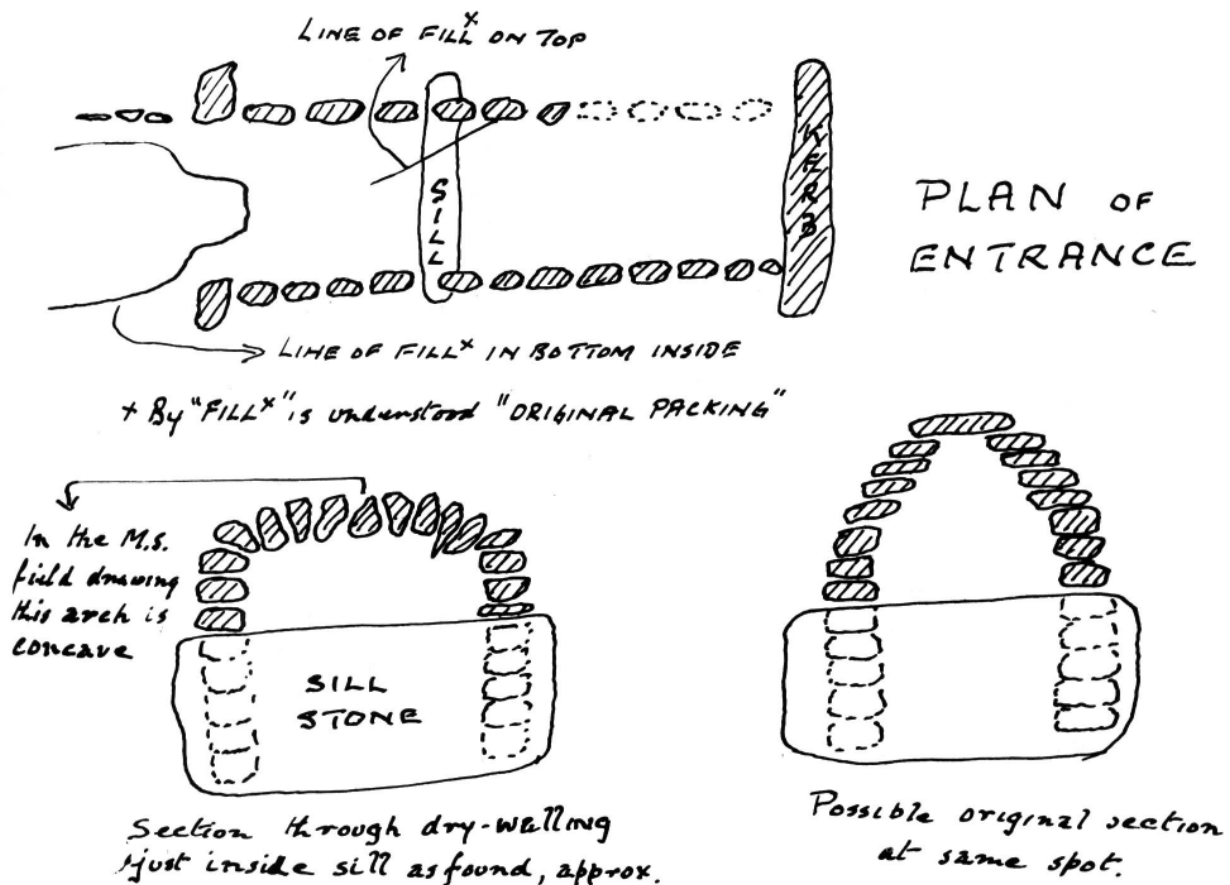


Fig. 11

bones. They were inhumed in the normal way at death, and left buried until the great communal burial on the sacred site took place. It is less easy to account for the breaking of the bones, but it may be explained by a desire to produce facility in carrying comminuted bones, whether burnt or the reverse, make a better parcel than if the bones, especially the long bones and skulls, are complete. A further difficulty arises in the very existence of cremation and inhumation side by side. It is a fact, insofar as it is attested for the clay packing at the entrance (for which, see later), for the burials in passage and chamber, and in the Black Layer both types of bones were inextricably mixed together. Different treatment might mean difference in social grade, different sex, different sect; but we can only guess as we have no facts on which to found a satisfactory theory.

The Passage Grave

About the tomb proper our knowledge must remain rather less adequate than is the case with the rest of the mound insofar as so much of it was already excavated and no adequate stratigraphical records are preserved. The entrance was, however, completely untouched (Figs 10 and 11). Directly in front of it was the well-squared kerb-stone already mentioned, in the packing outside which was found the decorated mortar. The passage proper ended at a sill-stone which was as high as the Kerbstone and thicker. The sides of the passage were formed of the normal large orthostats, 3 on each side, the last orthostat on each side being much narrower than the others and square in section. From this orthostat, on which rested a lintel (a corner of which was broken away, but

was still held in position), there projected a length of drystone walling, across which the sill went. The drystone walling then continued beyond the sill, from the level of the top of the sill up, and rested on top of the lintel already in position. It was recoverable in its two lower courses on the S side only—the final projection on the N side was broken down, as were the upper courses on the S side. The lintel sloped to the E, and must always have done so to judge from the manner in which the dry walling on the N side was levelled up on top of it. The space from the lintel outwards to near the Kerb was corbelled with smallish flat flags like those in the dry walling. When they collapsed they did so inwards and were found with their ends still clamped in position above, but their other sides pointing inwards. There was no slip of Cairn H2 through this roofing on to the fill beneath it. The dry-walling originally extended to the Kerb—the latter when raised to a vertical position corresponded exactly with the end of the walling on the S side. Between sill and Kerbstone the area was filled with a very carefully compacted filling consisting of large rounded stones and buff-brown clayey soil, the latter literally packed with bones. This packing was in fact but a continuation of the Brown Basal Layer, and the soil of it extended over the sill-stone and sloped down into the passage inside. The layer was unbroken and inside was also packed with bones, but the stones were fewer and smaller. A portion of the sill was exposed and it is this presumably which enabled one to be suggested in the plan of the tomb already published by Frazer and others.

The whole was covered by a very thin layer of the smaller stones of the dry cairn, but apparently not sufficient to prevent the vault from collapsing; or perhaps the technical expertness with smaller slabs (too much oversailing, for example) caused the collapse. The lintel was also covered by a thin layer of dry cairn material and then the whole passage from there to the kerb was covered by the transposed brown gravel and the Black Layer of Cairn H2. The passage was not completely blocked at the entrance during period H1 (as it was in H2) but the space between the top of the packing material over the sill and the overlying lintel was so small that not even a very small child could have wormed through. The entrance was thus to all intents and purposes permanently closed.

As far as the rest of the tomb is concerned nothing definite can be said. The material in it was modern fill—i.e. the result of various diggings, and probably also Conwell's dump thrown back by Rotherham. The upper levels of the fill were black, earthy, with many stones. Some cremated and

unburned bones were found, and a few flakes and objects. But generally speaking it may be said that previous excavators missed little in the way of finds. Towards the bottom the black fill gave place to a thin layer of sticky brown soil with small stones. The percentage of unburned bones at this level was noticeably higher than at a higher level. Under this was a brown gravelly layer, very thin, which was sterile and under that the grey gravel. The orthostat socket-trench was first noticed at the brown gravel level, on the inside this trench was very narrow and the filling in every case was of red clayey soil or reddish sand with stones wedged in. About the centre of the passage was a pit in the grey gravel filled in the usual way with red clayey soil and stones. The S chamber had no sill stone and no trace of a socket for one. The N chamber sill had no socket at the undisturbed level. The basin rested on a mixture of dark reddish soil, stones, masses of bones, a few flakes, rounded stone balls, etc. The basin was so shaped and was of such a weight that it must have been placed in position before the chamber was erected round it. Conwell says he lifted it, but in my opinion the most he can have done is to lift just one side of it (that nearest the sill). He certainly left the great bulk of bones, etc., in position, and if he had *dug* under it he could not have failed to find the rounded stone balls. Only a few of the corbels remained in position, and 2 (probably those which Rotherham reported as falling in his time) were found in the fill of the W chamber. Here also was found, lying prostrate, one of the orthostats of the N side of the W chamber. It was re-erected in its original position, and all the missing dry walling was re-erected. All the passage lintels were gone save one; but one assumes the original existence of a covering, and looks for explanation to Conwell's note of people coming from as far away as 20/30 miles to take these stones for hearth- and threshold-stones. In the ends of the N and S chambers there was a considerable amount of dry walling resting on top of the end stone and under the first corbel.

Discussion, Chronology and Conclusions

All the evidence collected points to a two-period monument. There is no suggestion of a third (i.e., earlier) period. Furthermore, the evidence indicates (to my mind conclusively proves) a date in the Early Iron Age (especially after the birth of Christ) for both periods. This point of dating is of vital importance, so we shall give first the accepted opinions relative to Cairn H and its type, and

follow this by our reasons for our dating.

The following theses have heretofore been accepted as facts:-

- (1) That H was in fact a cairn.
- (2) That the entrance was not blocked.
- (3) That it had been used repeatedly for burials: it was a communal burial place.
- (4) That it dated to the Early Bronze Age, conventionally approximately 2000 BC.

There was no evidence for points 1–3; for point (4) there were two points of evidence, namely

- (a) H was a megalith; and
- (b) It had decorated stones.
- (5) It was commonly accepted that all tombs of Passage Grave type belonged to same date. Evidence: none. Thesis due to lack of thought and adequate study: for there is in fact a clear typological development or degeneration in the tombs, which must have a chronological significance.

The Passage Graves of Ireland, although the best known group of Irish megaliths, have unfortunately fallen a prey to all sorts of antiquarian mentalities more intrigued by magico-religious symbols and possible pornographic interpretations of them than interested in a rational or reasonable discussion of the tombs or a genuine attempt to excavate the sites *as* sites. They were obsessed by the mad urge to 'get to the chamber' and draw stones: the information of the covering cairn or tumulus was not even secondary. It was ignored as being of no importance.

We are thus left with the following information regarding the material content of Irish megaliths:

Dolmens—next to nothing reliable.

Horned Cairns of all types—Neolithic (Windmill Hill) to Bronze Age (Food Vessel, Creevykeel)

Passage Graves (a) Unstan Ware from X?

- (b) Food Vessel from Carrowkeel.
- (c) Mushroom-headed pins, stone balls, pendants, stone basins, decoration, shells, quartz pebbles, etc.

Apart, thus, from (a) and (b) there is nothing reliable to date Passage Graves in Ireland and even food vessels may be much later than conventionally dated. For Group (C) every item (Query: Mushroom-headed pins?) has been found in Cairn H.

Evidence for a late dating of megaliths comes from:

- (1) Aghnaskeagh
- (2) Wayland's Smithy

- (3) Finistere
- (4) Rathkenny
- (5) Labbacallee

The two main dating criteria for H are the decorated bone flakes and the knobbed bronze rings. Heretofore it has been accepted that Cairn H was an *atelier* or bronze worker's workshop of the Early Iron Age; that he *lived* in the tomb and used the bone flakes as trial pieces. It is now clear how wrong this interpretation is: the flakes are special offerings deposited with the dead.

What evidence can we bring forward in favour of dating Cairn H1 to the Early Iron Age (Cairn H2 is self-evidently of that date)? The following points occur to one:-

- (1) The flakes, etc., in the Brown Basal Layer.
- (2) The fact that the Brown Basal was the same layer, continuous, as that which blocked the entrance, covered the sill stone and went into the passage.
- (3) The kerb (first erection) is dated by the mortar in the undisturbed packing outside it.
- (4) Flakes in the fill of the socket under the piece of dry-walling between the last 2 orthostats on N side of the passage.

Note: Decorated stone at Bryn Celli Ddu and cf. with decorated stone outside Kerb 18, Cairn H.

- (5) Flakes under the basin in N chamber. This is a valid argument, because even if Conwell *did* dig under the basin he certainly did not fill back under it; and anything found there, no matter how disturbed, must have been placed there originally.

As already mentioned against these facts the only *facts* in favour of a conventionally megalithic dating are

- (a) the megalith itself
- (b) the decoration.

But to accept a megalithic dating for H1, as we should like to, forces one to put forward theories which have no support in fact. Indeed, the only possible theory is one which postulates a partial denudation of the cairn and a poking in by Early Iron Age peoples of the material found in the Brown Basal. But if partially denuded where did the stones go? And above all, why? And how could flakes, etc., be inserted into the Brown Basal, wedged large stones, unless all the cairn mass above the layer had been removed? And, even if the cairn mass had been removed, why was there no trace

of OTL (Old Turf Line) over the Brown Basal? Why no trace of disturbance? And above all, how could bones and flakes be inserted at all levels through the clay in such a way that they could only have been placed there as the layer was put in position? But even suppose, which is doing a lot of supposing, that the original cairn had been denuded down further, to Clay Layer 2, it does not get over the difficulties (a) of finding flakes in the socket fill, and (b) of flakes under the basin.

I do not see that one can reject an Early Iron Age dating for Cairn H1.

But is this after all so startling? If we could only rid ourselves of preconceptions we would surely see the matter in a more reasonable light. When asked, 'how do you date megaliths?' one says, conventionally, to round about 2000 BC. But, although one knows the facts, one forgets that megaliths must have had a long period of development and that, as seems most likely, the designs on the stones had a

religious meaning. Now, it is of the essence of all religions to become standardised and conservative. Change in established ritual is abhorred, so that there is nothing strange in suggesting that the 'megalithic religion', as represented by its funerary aspect (Cruciform Passage Grave, Cairn, decorated stones), might not have continued unchanged for 2,000 years. After all, Christianity has hardly changed in the same span of years.

But, if this interpretation is true, it argues for a remarkably well-organised priest class, for very standardised and stabilised social, legal, religious codes, and in fact for such outstanding steadfastness and conservatism that one is staggered by the apparently easy conquest of the country by Christianity. For Cairn H1 is in every detail true to the type of the original Cruciform Passage Grave, which, in the absence of evidence to the contrary, we still postulate as belonging to the Early Bronze Age.

A long 1923

Michael Ryan

Barry's father, Joseph Raftery, was Keeper of Irish Antiquities in the National Museum of Ireland from 1949 until his appointment as Director in 1976. He had previously served as Acting Keeper during the prolonged absence of Dr Adolf Mahr in Germany from 1939 to 1949. Dr Raftery was a repository of institutional folklore reaching back to the foundation of the Museum, and his first-hand recollections of its history dated from the early thirties, when he worked on the excavations of the Harvard Archaeological Mission to Ireland and in the Museum under Mahr. I worked with Dr Raftery for the final eight years of his career and got to know him even better after retirement, when his fund of recollections was shared very freely with his younger colleagues on social occasions. Institutional folklore is an interesting phenomenon that ought to be the study of business schools the world over. It does not always enshrine a historically accurate record of events, and the trigger for remembrance is often a pressing contemporary issue or the validation of a putative institutional core value. In 1988, Dr Raftery published a reminiscence of the Museum entitled 'A Backward Look' in *Archaeology Ireland* 2 (2) (Spring 1988), 22–4. In it he gives a good deal of space to the issue of appointing a Keeper of Irish Antiquities to succeed E. C. R. Armstrong, the distinguished incumbent who resigned his post in November 1922 under the terms of the Anglo-Irish Treaty of 1921 and left for England. Sadly, Armstrong died shortly afterwards (Waddell 2005, 185–7).

Raftery's article is full of good things, but where he discusses the history of the post of Keeper of Irish Antiquities in the National Museum of Ireland he gave fresh life to an institutional legend and new legs to some old stories that have no foundation in reality. I refer to the controversy over the competition for the appointment of the Keeper in the early 1920s and the experience of Dr Cyril Fox as an applicant for the post. The article drew comment in the form of a letter from Commander Charles Scott-Fox to *Archaeology Ireland* 2 (3) (Summer 1988), in which he gave an account of the recruitment process that drew on his knowledge of his father's response to the outcome and on Fox's personal papers (see Scott-Fox 2002, 57). The history of this sad transaction is very straightforward; I have checked

the records and a reasonably complete picture of what occurred can be reconstructed.

The story began on 1 November 1922, when the Royal Irish Academy was notified by Armstrong that he was resigning his post and returning to England. The National Museum appears to have been closed to the public at the time, presumably because of the dangers posed by the Civil War that was then in progress (e.g. Ferriter 2004, 255–70). On 6 December, Armstrong handed the key to the Gold Room to Professor R. A. S. Macalister (a distinguished predecessor of Barry's in the Chair of Celtic Archaeology at University College Dublin). The Academy's Committee of Polite Literature and Antiquities (PLA), of which Macalister was a member, resolved to prevent access to the room during the periods of closure unless the consent of the Council of the Academy had first been given. The Secretary of the Academy (H. C. Lawlor) then wrote (30 December 1922) to the Minister for Agriculture and Technical Instruction, under whose aegis the National Museum then was, requesting the appointment of a replacement Keeper and pointing out that on previous occasions the Royal Irish Academy had recommended to the Department the name of the person whom 'they regarded as especially qualified for the office'. The Secretary went on to say that the Academy trusted 'that a similar arrangement may be sanctioned now' by the Minister, and that the Ministry could rest assured that the Council would endeavour to find 'a thoroughly trained and accomplished Archaeologist'. The letter also stated that the Council of the Academy was of the view that a committee consisting of Professors Macalister, [Osborn] Bergin, the distinguished Celtic scholar, and [Eoin] MacNeill, Professor of Early Irish History in University College Dublin and a prominent nationalist, should supervise the collection in conjunction with the Acting Director, pending the appointment of a Keeper. Patrick Hogan was the dynamic and ingenious Minister for Agriculture (1922–32), and he was then grappling with immense problems of land reform (see Daly 2002, *passim*; Ferriter 2004, 314–15). On 10 January 1923 he wrote to the Academy, agreeing to the supervision of the Academy's collection by the committee of three professors; the letter

further states that 'I approve of the Council of the Academy making, as on previous occasions, the nomination to the Department so soon as they succeed in finding a person possessing the very special qualifications required . . .'. The Minister added that he assumed that the views of the three professors would be taken on the question of the appointment.

The PLA Committee was then requested to advise the Council of the Academy on what steps should be taken to appoint a Keeper and to take charge of the collection in the interim. The PLA Committee received reports throughout 1923 on the collection, at first from Professor Macalister and later from the Acting Director of the Museum, J. J. Buckley. In a letter of 6 August 1923, Macalister wrote to convey a suggestion that he should assume the Keepership in addition to his professorship and to nominate an Assistant Keeper, Mr Diarmuid Coffey, son of the late Keeper, George Coffey. Macalister would appear to have had the backing of J. H. Barnard, Provost of Trinity. But the proposal did not have unanimous support. Two of the three-person committee supervising the collections in the Museum clearly did not approve of the proposal and were somewhat frustrated at the fact that little had been done to pursue the search in the following months. Thirteen months in all had passed without progress on filling the vacancy when MacNeill and Bergin wrote to the Academy (22 February 1924) pressing for the appointment of a new committee to identify candidates for the post of Keeper. On 7 April notice was given by the Provost of Trinity that he would propose the appointment of Macalister at the next Council meeting (RIA 1924, 235). At that meeting (5 May 1924), however, the proposal was withdrawn, and a new committee (the members were E. J. Gwynn, Rev. Dr Lawlor, Mr Alton and Mr Strickland) was established to conduct the search for a new Keeper 'abroad as well as in Ireland and Great Britain'. The Council Minutes of 19 May 1924 noted that Macalister had also withdrawn his letter proposing that he should undertake the Keepership. Council asked the committee of supervision to continue to oversee the collection. Things began to move more swiftly thereafter, but the delay (by then amounting to eighteen months) was to cause great difficulty. It is, however, difficult to understand why Macalister wrote to suggest himself as he did. It clearly slowed the process down—in effect the search was suspended between August 1923 and May 1924—and his 'suggestion' seems to have caused a great deal of unhappiness with his colleagues on the supervising committee. Nowadays, he would be held to have

had a conflict of interest so serious as to prevent his further participation in discussions of the matter.

On 30 June 1924, the new search committee reported back to the Academy and recommended two names, a Mr Wace (the very distinguished classical archaeologist and curator at the Victoria and Albert Museum, Professor A. J. B. Wace (1879–1957), who in 1924 was between appointments as Director of the British School in Athens (1914–23) and Curator of Textiles at the Victoria and Albert Museum; the report from the search committee to the Council of the Academy pays tribute to his exceptional experience and important qualifications) and Dr Cyril Fox, whose 'claims . . . were superior to those of other candidates'. This was Dr (later Sir) Cyril Fox, Fellow of the British Academy (1882–1967), Director of the National Museum of Wales (1926–48), and author of numerous papers and books (e.g. 1932; 1946; 1958). The committee noted that he was 'very well qualified by experience of museum work in Cambridge and by a certain amount of fieldwork . . . had special experience of Irish archaeology in so far as he has had the arrangement of the Murray Collection, which forms part of the Cambridge Museum'. It is important to note that Walther Bremer was not on the short-list, as suggested by Scott-Fox in his letter to *Archaeology Ireland* cited above. Both Wace and Fox were invited to Dublin to meet the committee on 15 July. By then, responsibility for the Museum had been transferred from the Department of Agriculture and Technical Instruction to that of Education. (The Ministers and Secretaries Act 1924 had transferred technical education and cultural and educational institutions, such as the National Museum, from the Department of Agriculture to the Department of Education, although the order implementing the transfer was not made until December 1927 (Daly 2002, 103).) The Council wrote to the Minister on 20 June 1924, explaining the steps they had taken. The Committee charged with the search had 'made careful enquiries . . . both in this country and in Great Britain and also in several continental countries' and 'applications had been received from several persons', and the Council offered the Minister the opportunity to meet the nominated candidate when he was in Dublin.

A further letter was sent on 15 July 1924 (the day of the interviews), nominating Dr Cyril Fox of the Cambridge Museum of Archaeology and Ethnology for the post 'as the candidate who in their [the Committee's] opinion, possesses in the highest degree the very special qualifications required for the position'. The reply to the Academy's

recommendation on 23 July 1924 came from the Secretary (*Runaidhe*) of the Department of Education, Séosamh Ó Néill, who in a letter pointed out that the position of Keeper in the National Museum was a civil service appointment and 'under the terms of the Civil Service Regulation Act, 1924 it is necessary for the council to make application to the Civil Service Commission for sanction. Section 3(1) of the Act provides that no person can be appointed to any permanent situation in the Civil Service of the Government of Saorstát Éireann unless and until a certificate of his qualification for such situation has been issued by the Civil Service Commissioners.' Ó Néill went on to say: 'I am to ask that the Council will give this matter their attention as soon as convenient, as otherwise there is a serious danger that the appointment in question may not be sanctioned'. Lawlor, on behalf of the Council of the Academy, wrote to the Secretary of the Civil Service Commission on 25 July, setting out the history of the case briefly and requesting that Dr Fox's name 'be laid before the Civil Service Commission for their sanction to his nomination to the . . . post'.

The Commissioners replied on 31 July 1924, stating that the procedure established by law was to advertise the post in the press, interview applicants and recommend a final selection to the appointing authority, in this case the Minister for Education. Selection boards were to be set up, consisting of members nominated by the Department concerned with the appointment, a representative of the commissioners and an outside expert. The Secretary did 'not see any reason to depart from this practice in appointing Keeper to the Museum'.

In the letter he invited the Academy to settle the terms of the advertisement with the Minister for Education, and the Commission would publish it in the newspapers. The Council of the Academy was also invited to nominate a representative to serve on the selection board that would interview candidates after the receipt of applications. Notwithstanding the steps already taken with the agreement of the Minister for Agriculture, Lawlor on 4 August wrote to the Civil Service Commission conveying the name of the Academy's nominee (E. J. Gwynn) to the Selection Board (after the subsequent withdrawal of Fox, Gwynn stood down as the Academy's representative on the Commission's interview board and was replaced by Macalister). The Commission replied, asking the Academy Committee to agree the terms of the advertisement with the Department of Education. In correspondence in August, Lawlor informed Fox of the state of affairs. Fox would appear then to have

consulted his colleagues and friends about what to do, and he seems to have been considering an informal written offer from Mortimer Wheeler, then Director of the National Museum of Wales, to take up the Keepership in Cardiff. A letter from Lawlor to Fox in late September setting out the correspondence which had led to the state of affairs was answered by Fox on 3 October (see Appendix I).

Fox thanked Lawlor for his explanation of what had happened over the appointment. He went on to express his reluctance to submit himself to any body other than the Royal Irish Academy. He said that he felt that the Academy had been badly treated by the Minister and he referred to the rights of the Academy as having been set aside 'with ill disguised contempt'. He declined to participate in the new competition and asked the Academy to consider his decision as final. About the same time E. J. Gwynn also wrote privately to encourage him to stay in the competition, but Fox was adamant in his refusal to stay in the race. He suggested that Gwynn could hardly be serious in asking him to renew his application. Acknowledging that the situation had its humorous side, he concluded: 'I have gained a little knowledge of human nature, a set of maps of Dublin and District which I purchased in a short-lived mood of optimism and the recollection of a very pleasant visit to a fair city' (Scott-Fox 2002, 57).

On 10 November 1924 the terms of the advertisement and its circulation were finally agreed between the Royal Irish Academy and the Minister for Education. The advertisement in the press went ahead (copies were also sent to 'as many Museums, Antiquarian Societies and Learned Bodies in Europe as possible'). The competition was held probably in early summer 1925. On 4 June 1925, the Minister for Education wrote to the Academy asking that the Gold Room be opened once more to the public, but the Academy declined—clearly tactically—as there was no Keeper in post to ensure the security of the collection. On 10 October 1925, the Academy was informed that Dr Walther Bremer had been appointed to the Keepership with effect from 1 October. Dr Bremer was a graduate of the University of Marburg, and his appointment began a link between the university and Irish archaeologists that still continues. (Joseph Raftery held a doctorate from there, as does Peter Harbison. Barry Raftery spent periods studying in Marburg, as did other Irish archaeologists, including the writer.) Bremer unfortunately died on 19 November 1926, apparently from undulant fever. The procedures established by law were followed for the recruitment of a successor to

Bremer, and on 29 September 1927 the Secretary of the Department of Education wrote to the Royal Irish Academy to inform them that Dr Adolf Mahr had been appointed. Fox was not a candidate in this second competition either. Fox went to Cardiff and within eighteen months he had become Director of the National Museum of Wales, a post that he filled with great distinction (see Daniel 1975).

In Dr Raftery's article it is said that Liam Gogan, who then worked in the Irish Antiquities Division, at some point when Fox's candidacy was live paid a visit to London, where Dr Fox was lecturing, and afterwards announced himself as 'the successful candidate for the Dublin post', presumably as an attempt to unsettle Fox and induce him to withdraw his bid for the Keepership. There is no evidence that Fox ever met Gogan, and the story widely circulated—that Gogan paid a somewhat sinister visit to Dr Fox—is an injustice to Gogan's memory. An especially lurid version of this story was related by two alumni of the National Museum, who both stated that Gogan dressed for the occasion in the theatrical IRA man's trench coat—so much for institutional folklore! I discussed this point with Commander C. Scott-Fox, son of Sir Cyril Fox, shortly after his letter appeared (Scott-Fox 1988; this summarised the Fox episode but, like Dr Raftery's 1988 account, is inaccurate in a number of respects) and he was quite satisfied that Fox and Gogan had never met. He did, however, relate in his letter to *Archaeology Ireland* that his father regarded the Civil Service intervention in the affair as an attempt to prevent the appointment of an Englishman—a point that is repeated in his biography of his father. There is no evidence of institutional bias against Englishmen in the formation of the Irish Civil Service after the Treaty of 1922; if anything, there is strong evidence for continuity and close working relationships between Irish officials and their counterparts and also between political figures on both islands. This is very evident from the discussion of the formative period in Fanning 1978. It seems pretty clear from the evidence that the Academy was very much out of touch with the legislative changes that were taking place at the time, and it is equally clear that the civil servants in the new Department of Education had no choice but to follow the new statutes in dealing with the matter of recruiting a Keeper for the National Museum. It is likely that the outcome was the result not of conspiracy but of its common alternative. The delay by the Academy in dealing with the matter was unpardonable, and Fox, the innocent victim, was entitled to feel aggrieved, although all the evidence suggests that he held no grudge and maintained

friendships with leading Irish archaeologists.

The whole tangled story is a fascinating sidelight on the unsettled state of the country in the immediate aftermath of the Treaty and of the problems of establishing the new administration and new systems of control for the public service. It is clear from the files that the disturbed conditions obliged the National Museum to close to the public and that the Academy remained cautious about the admission of visitors to its collections until well into 1925. The Academy itself had gone through a precarious time because the government of the Irish Free State was initially intent on setting up a National Academy to replace it. It was inevitable that unfortunate misunderstandings should have arisen. One of the most persistent of these is the assumption that the Academy had in effect the legal right to appoint the Keeper of Irish Antiquities. This was never so. Under the agreement of 1891 that transferred the Academy's collection to the National Museum, it is quite clearly stated that the servants of the Academy were to become servants of the Science and Art Department, to which the Museum then belonged—that is, they were to become civil servants. After the retirement of the Academy's Curator, Major McEnery, a post of Superintendent of Irish Antiquities was created in 1897. The Superintendent was to act as curator of the Academy's collection. George Coffey was the successful applicant for this post. It is salutary to note that he was employed at a salary scale somewhat lower than would have been normal at the time because it was felt that, as he would be appointed from outside the civil service, in the sniffy words of the Treasury Crown Solicitor it would only be possible to establish 'on trial if a person so employed would make an adequate public servant'.

It was also the opinion of the authorities that, as the qualifications for the post would really only be called for in the National Museum, there would not be much of a market for the requisite qualities for appointment as Superintendent of Irish Antiquities. Accordingly, as a courtesy, the Academy was asked to nominate a candidate for appointment. This courtesy was extended on a subsequent occasion (on Coffey's retirement with the appointment of Armstrong), but it is clear from the records that the appointing authority was always the government and not the Academy, and that the person appointed was a civil servant and not an employee of the Academy. The practice—if two instances can be called a practice—started in the years before civil service recruitment was systematically regulated. That the Academy failed to notice the passing of the Civil Service Regulation Act and

other major reform legislation after independence is astonishing.

It is usually pointless to sigh after might-have-beens or what-ifs, but the appointment of Fox would not only have provided a very dynamic scholar and capable administrator with great opportunities for research—it would also have spared the National Museum the shambles that the Mahr tenure eventually became. The débâcle of the protracted end of Mahr's career and the astonishing fact that, although a civil servant, he felt free to engage publicly in political activity to the extent of joining and eventually leading the Nazi Party in Ireland is very well covered by Gerry Mullins (2007). His accomplishments as a curator notwithstanding, his public folly and departure for Germany shortly before the outbreak of war in 1939 and his wartime propaganda activities made it impossible for him to return to Ireland in 1945 and prevented for ten years the substantive appointment of a successor to the Keepership. That wasted 1923 proved in the long run to be very costly for the National Museum and for the Academy.

Acknowledgements

It is a pleasure to dedicate this historical note to Barry Raftery in remembrance of a particular act of kindness many years ago, which he has probably forgotten but I haven't. I owe a debt of gratitude to Joan Jennings, formerly of the Royal Irish Academy, and to Siobhán Fitzpatrick, Librarian of the Academy, for all their assistance to me when researching the background to the Keepership of Irish Antiquities.

References

- Daly, M.E. 2002 *The First Department: a history of the Department of Agriculture*. Dublin. Institute of Public Administration.
- Daniel, G. 1975 *A hundred and fifty years of archaeology*. London. Duckworth.
- Fanning, R. 1978 *The Irish Department of Finance 1922–1958*. Dublin. Institute of Public Administration.
- Ferriter, D. 2004 *The transformation of Ireland 1900–2000*. London. Profile Books.
- Fox, C. 1932 *The personality of Britain*. Cardiff. National Museum of Wales.
- Fox, C. 1946 *A find of the Early Iron Age from Llyn Cerrig Bach, Anglesey*. Cardiff. National Museum of Wales.
- Fox, C. 1958 *Pattern and purpose: a survey of early Celtic art in Britain*. Cardiff. National Museum of Wales.
- Mullins, G. 2007 *Dublin Nazi No. 1: the life of Adolf Mahr*. Dublin. Liberties Press.
- Raftery, J. 1988 A backward look. *Archaeology Ireland* 2 (1), 22–4.
- RIA 1924 Royal Irish Academy Council Minutes XXVI.
- Scott-Fox, C. 1988 A backward look [letter to the editor]. *Archaeology Ireland* 2 (2), 79.
- Scott-Fox, C. 2002 *Cyril Fox, archaeologist extraordinary*. Oxford. Oxbow.
- Waddell, J. 2005 *Foundation myths: the beginnings of Irish archaeology*. Bray. Wordwell.

Appendix 1 Text of Fox's letter to Lawlor

Field Laboratories
Milton, Cambs. October 3rd
1924

Dear Dr. Lawlor,

I thank you for your letter of September 29th enclosing copies of the official correspondence resulting from my nomination by the Academy to the Keepership. In reply I must first express my appreciation of the terms in which you refer to the difficulty and uncertainty in which I was placed by the prolonged inaction on the part of the Minister of Education of the Irish Free State, which was ended by his virtual refusal to honour the Academy's nomination. I wish secondly to thank you for the frank way in which you have explained the present situation and the circumstances which gave rise to it. I need hardly assure you that at no time did I suppose that the Academy was responsible for such a condition of affairs.

Your letter relates mainly to past history but the postscript contains a matter to which you will wish an immediate reply, since it concerns the Academy's future course of action in connexion with the appointment.

While I was naturally ready to submit myself for the post of Keeper of Irish Antiquities to a Committee representing a body of the standing and integrity of the Royal Irish Academy—from which a candidate could rely on a dispassionate and impartial scrutiny of his qualifications,

without the intrusion of any irrelevant considerations; I am not willing to present myself anew as a candidate for the post to a Board newly set up in the manner indicated in the correspondence referred to.

Consideration of the outstanding features of that correspondence—the discourtesy with which the Academy, acting in accordance with its legal right and with the instructions of a Minister, has been treated by that Minister's

Department, and the ill disguised contempt with which the rights of the Academy have been set aside, and its protests ignored by the Civil Service Commissioners of the Irish Free State—confirms me in my decision, which with great respect, I would ask the Academy to regard as final.

Yours sincerely
Cyril Fox

'These gentlemen'—an old row over who should excavate Tara

Patrick F. Wallace

Excavations are only as good as their time and its techniques allow and as the experience of their leaders inspires. Their achievement should only be measured against those of their contemporaries and, above all, by the most fundamental of all archaeological yardsticks—whether they were published. If the excavators happen also to be university-based archaeologists, their works, to a limited extent, can be judged by the approaches and standards of those whom they teach. I am minded in all of this of the implied criticism of Seán P. Ó Ríordáin, whom I know from letters to my predecessor, Adolf Mahr, for whom he worked in the National Museum and who, in the early thirties, was sent by Mahr to museums and institutes around Europe, from which he made reports about which I have written elsewhere (Wallace 2004). I am here merely reopening a series of newspaper letters and articles of over half a century ago concerned with who should excavate Tara (Waddell 2005) because of the present topicality of that great site. I offer it in humble thanks to Barry, a specialist of the Iron Age, someone who has done much to insist on the proper and full publication of the Museum's Dublin excavations and to show that Irish archaeologists speak better of one another than they did then.

The criticism I refer to came in 1952 (the year after Mahr died in Germany (O'Donoghue 1998; Mullins 2007; Wallace 2007), some twelve years after he had left the Museum), when Ó Ríordáin was at the height of his powers as professor at University College, Dublin, after fifteen years of digging at Lough Gur, which he had started in 1936. He was by far the most experienced and luckiest excavator in the country, well known at home and abroad, even on TV in England, where he regularly appeared with Glyn Daniel and Mortimer Wheeler, and having trained excavators like M. J. O'Kelly, P. J. Hartnett, Marcus Ó hEocaidhe and Peter Danaher.

It appears that early that year moves were afoot to dig Tara and have the country's senior archaeologist undertake the excavation of the most prestigious prehistoric site of all. A report of this caused Eoin MacWhite to write an article in the *Irish Times* on Saturday 2 February 1952 under the headline 'Should Hill of Tara be Excavated?' MacWhite, the last (and best) student of one of Ó Ríordáin's predecessors,

R. A. S. Macalister, was a diplomat in External (now Foreign) Affairs but also a scholar whose doctorate on Ireland's Atlantic trading relations during the Bronze Age was published in Spanish (1951).

MacWhite's view was that 'the complexity of the problems involved and the historical importance of the site are such that permission to excavate Tara should only be given to an archaeologist of the highest calibre' because, as he argued, the site 'has all the signs of being a difficult one'. And while admitting that a number of sites in Ireland had been competently excavated, he asked, 'can we honestly say that we have produced anyone whose experience and achievements can rival those of the leading excavators of Northern Europe . . .?' He even cites names like Bersu in Frankfurt, Van Giffen in Holland and Stenberger in Sweden, and says that 'none of our excavators has reached, in experience of achievement, the repute of archaeologists' such as these. He says that, even if we had such an archaeologist, he would be hampered by a lack of backup from colleagues of sufficiently high calibre, and that, anyway, no one from Ireland had ever been asked to excavate in another country.

MacWhite maintained that 'until we have attained a universally recognised high standard of excavation technique, we would be well advised to apply our efforts on less crucial sites and win our archaeological spurs before tackling Tara'. Rather wisely, it has to be admitted, he advised against excavating and thereby losing forever 'the solution of many problems that the backward state of our studies prohibits us from formulating'. The reference to 'our studies' may relate to his unsuccessful candidature against Seán P. Ó Ríordáin for the UCD chair in 1943, also the year in which his controversial interpretation of a Harvard Survey had concluded that the main body of the Irish people belonged to the Upper Palaeolithic Brinn strain, whose culture was introduced by the Larnians, for which he cited the support of Movius, Raftery and Coon (*Irish Times*, 6 February 1943).

Whether or not the defence was to any extent orchestrated by Professor Ó Ríordáin is now impossible to say, but Irish archaeology found its defenders at home and abroad, most of them writing in barely restrained tones of

indignation. The first of these to be published was F. P. Thomas, writing in the *Leader* magazine on 9 February, who questions whether MacWhite himself had ever carried out a serious excavation in Ireland and labels his approach as that of a desk archaeologist who looked down on the dirt archaeologist: 'the study looks down upon the spade'. The writer also damns MacWhite's propensity to drop foreign names while at the same time mentioning the luminaries of the Prehistoric Society who had held their annual congress in Ireland as recently as the autumn of 1951, 'itself a compliment and a sign of the prestige which Irish archaeology enjoys', with some of the most eminent of its members, like Childe, the Hawkeses and Piggott, being named.

F. P. Thomas stingingly asks, 'if Wheeler of Maiden Castle, Verulamium, Pakistan and Stanwick will not do, must we turn to MacWhite of External Affairs?' He condescendingly concedes that 'perfection after all is so rarely achieved in any walk of life—even in the Civil Service', asking MacWhite 'to grant Irish *dirt archaeologists* their spurs'. Thomas believed that Irish archaeology 'has reached maturity' in the previous quarter of a century and 'cannot be denied the right—and the honour—of excavating Tara'.

If there wasn't such a person as F. P. Thomas—and surely we should know more of him if he was a journalist/writer who could write so knowledgeably about archaeological politics—it may be that this was a *nom-de-plume* for somebody in the know, possibly put up to defending Ó Ríordáin, whose name never actually figures in the article. But if so, who might F. P. Thomas have been? It was clearly somebody who knew how vulnerable a civil servant in External Affairs, such as MacWhite, was. (Incidentally, like his father before him, the younger MacWhite was to rise to the rank of ambassador, and, later, to be sadly killed in a road accident in the Netherlands, where he was then serving.) Thomas also knew that an official should not publicly become embroiled in a public controversy by writing an article or letter to a newspaper, more especially if the subject-matter was the concern of another department and minister. Whoever F. P. Thomas was, he keeps harping on this, almost inviting chastisement of MacWhite by his own minister. He talks about the extra 'piquancy lent to the situation' because 'the self-constituted Devil's Advocate is a civil-servant from, of all departments, External Affairs', a department which 'in office hours' spends public money producing 'a lively bulletin to praise legitimate Irish achievement', while in his

spare time 'the young diplomat cheerfully undoes the good work and denounces, under his own name, one flourishing side of Irish cultural life'. Elsewhere, Thomas harps on about 'the propriety of a civil servant appealing directly to public opinion under his own name, on an issue which we take it may still be *sub judice* in another Government department'. He even uses MacWhite's job sarcastically to suggest that being indoors in his office during the digging season would 'leave little time for the months of leisure which modern scientific excavation demands' and explains how he wrongly refers to monuments at Tara which no longer survived. Some journalist! Is it just possible that F. P. Thomas is a name being used by an admirer of Ó Ríordáin, a distinguished ex-student of his and a fine writer, somebody who, while not himself an archaeologist, would have been fully aware of the politics and in his own place of employment possibly part of a faction in which a rival numbered MacWhite among his supporters? Most pertinently, as I know from experience, the perpetrator I'm suggesting had an antipathy to civil servants going public with their views in newspapers and had a lifelong distrust of the media. In short, could this be A. T. Lucas, who two years later became director of the National Museum of Ireland? If it was someone in the know it might also have been Máire or Liam de Paor, or even Ruaidhrí de Valera; we just can't be sure at this juncture.

In any case, bigger guns were ready to defend Irish archaeology—for which we should read Seán P. Ó Ríordáin, though his name never appears in any of the letters or articles. On 8 February 1952, in a letter written to the *Irish Times*, no less a personality than V. Gordon Childe of the University of London's Institute of Archaeology waded into the fray. Although thanking MacWhite for writing so lucidly on what excavation and fieldwork could achieve, he takes issue on two main counts. Firstly, he was shocked by MacWhite's claim that there existed 'a sort of super national hierarchy of excavators who alone are competent to conduct excavations on sites of exceptional scientific or sentimental import. This is a complete misrepresentation of the set-up of archaeological fieldwork on the international and national side.' While conceding that there were excavators with reputations for using experimental techniques for dealing with sites of particular kinds, and that wise fieldworkers tend to visit as many foreign excavators as possible to observe the newest developments in recording and asked for lectures by such practitioners in their own countries, he stressed that such contacts were 'not to solve in these countries problems which the local archaeologists felt themselves incompetent to tackle'.

Childe's second main objection to MacWhite was the implication of the latter's article that Irish-trained archaeologists were fit only to do rescue excavation when in fact all excavation was destruction and there was no great difference between rescue and research work. 'On Dr MacWhite's showing, then, Irishmen should only be allowed to touch sites that are going to be destroyed anyway.' Childe refutes this utterly by saying, 'This is not the impression gained by members of the Prehistoric Society, who saw first class excavations in progress on Neolithic, Bronze Age and medieval sites, or by foreign scientists, who have read recent reports published by the Royal Irish Academy, the Society of Antiquaries of Ireland, etc.'

Childe finished by saying that, while 'as a foreign prehistorian' he had no particular interest in excavating Tara, he did 'confidently look to my Irish colleagues for the solution of crucial problems in European prehistory by the exemplary excavation and meticulous publication of sites chosen by them for the solution of those problems'. It should be added here that Childe had known Ó Ríordáin for twenty years since Adolf Mahr first sent him to Scotland to observe Childe's techniques on a Scottish hillfort about which Childe had written to Mahr. G. F. Mitchell (1990), although then very young, was another to benefit (in his case more indirectly) from Mahr's network of contacts in the early thirties, which resulted in Knud Jessen, whom Ó Ríordáin met in Copenhagen, coming to Ireland and taking on the young Mitchell as his field assistant.

A still comparatively young Mitchell wrote to the *Irish Times* (published on 14 February 1952) about Mr (*sic*) MacWhite's 'undermining doubts'. Mitchell's letter is useful in its mention of those whom he felt were then impressive excavators in Ireland (curiously, maybe deliberately, he leaves out Ó Ríordáin), and even more so in its implication that the excavator for Tara was then not yet chosen. Mitchell took a fairly strongly nationalist position about the article 'as a typification of an attitude all too common in Ireland, which makes us doubt whether we are really worth the title of a nation', noting 'the lack of self-confidence, the inferiority complex which runs through the article'. Intriguingly, he says that he refuses to bring the article's 'undercurrents of innuendo to the surface'.

Mitchell passionately refuted the suggestion that only when an Irishman is recognised by being invited to excavate in another country should he be allowed to excavate Tara, and that meanwhile he should be content with 'less crucial sites'. He cites the work at Fourknocks of P. J. Hartnett

(1957) of the National Museum to show what could be gleaned by an Irish archaeologist from 'a dull-looking mound in Co. Meath', just the sort of site to which Mr MacWhite would confine him. Rhetorically, Mitchell asks, 'Did Mr Hartnett's supporters say "You must stop now, we have to send for Professors Bersu, Van Giffen and Stenberger"?', and answers 'No—they said "Carry on", they produced as much money as was available', Mr Hartnett excavating the mound 'in a manner that has been praised by every expert who had seen the site'.

Mitchell also refers to the work of M. J. O'Kelly, H. E. Kilbride-Jones and Seán P. Ó Ríordáin, citing O'Kelly's published work on soils and their colours and stating that he 'would be as likely as any foreigner' to notice what MacWhite had referred to as 'barely perceptible' colour changes in soil. He groups Kilbride-Jones and Ó Ríordáin together, mentioning how at different sites they had 'discovered and illustrated post-holes' long before 'Professor Bersu came to this country'. He also mentions Ó Ríordáin's observations at the Curragh. Almost in the manner of a lawyer making a summation before a conclusion, Mitchell then challenges MacWhite, in whose opinion 'not one of these gentleman' ranks as 'an archaeologist of the highest calibre . . . whose experience and achievements can rival those of the leading figures of Northern Europe'. Emphatically, Mitchell cannot share this opinion because 'these gentlemen are all able excavators and—still more important—they are at an age when they still have the physical vigour to undertake large projects'. He conceded that in ten years the vigour and enthusiasm might be gone, but by then they would have earned 'the foreign recognition required by Mr MacWhite'. Mitchell, while right to be worried about giving large projects to people of advanced or even middle years, was wrong about O'Kelly, whose vigour and enthusiasm were evident at Newgrange for at least twice that time-span!

Mitchell concludes his letter by saying that 'If one of these gentlemen is willing to undertake the task of excavation at Tara, we should say "We have confidence in you, and we will place the limited resources of this small country at your disposal now",' adding that MacWhite should find relief that the ensuing publication 'would be studied with approval in every archaeological centre in Europe'.

Childe's letter drew an eloquent response from MacWhite in the *Irish Times* on 10 February 1952, which was published on 13 February. In this he thanked Childe for

correcting any misapprehensions his article may have produced about the suitability of Irish archaeologists only for rescue digs but held fast to his view that Ireland had not produced 'any great experimentalists of acknowledged repute', which he maintained was symptomatic of 'our not having reached full maturity in excavation technique'. Tara, he felt, required an experienced and skilful operator, not somebody trying out new techniques. Again he refers to the importance of the literary evidence and of the need for the excavation programme to tie in with this. He closes by saying that the excavation of Tara should be the culmination of a process, not the beginning, and that 'a well planned series of excavations of sites of historical importance regarding which there is literary evidence is an essential [first] step'.

MacWhite had made his point publicly and had drawn the wrath of his critics, or rather that of the supporters of Professor Seán P. Ó Ríordáin. Although he may have been in breach of civil service licence, he was operating from the comparative safety of External Affairs, arguably then—and certainly now—the least civil-service of the departments, where somebody like MacWhite could anyway be sure that he would be getting a foreign posting before very long. It didn't hurt the reputation of a department that was then the nursery of future ambassadors to have among their number lucid and scholarly young diplomats who weren't afraid to speak their minds on cultural subjects. After all, this department then had among its staff intellectuals and writers of the calibre of Conor Cruise O'Brien and (his later wife) Máire Mac an tSaoi. More tellingly, perhaps, from the archaeological political perspective, MacWhite's going public in this way, though perhaps strategically motivated to bring him back to some future position in the subject—that is, if it wasn't entirely motivated by his antipathy to Ó Ríordáin or egged on by a public service archaeologist who couldn't stand Ó Ríordáin but couldn't himself speak out lest his concerns be construed as arising from personal animosity—must be seen either as detrimental to any such ambition or signalling his resignation from the whole scene.

Less than a fortnight after the appearance of MacWhite's last letter, the *Irish Independent* ran an article headed 'Move to Uncover Secrets of Tara' on 26 February 1952, and an *Irish Press* headline 'Tara May Give up its Secrets at Last' was accompanied by an aerial photograph of the site. Both announced that Ó Ríordáin would be directing the campaign, and the *Independent* said that the professor had given an interview to the paper. Reading between the lines of the report, which states that 'many visiting experts have

frequently urged on *Irish* [my italics] archaeologists that investigations should be undertaken' and quotes Ó Ríordáin as saying that 'simultaneously with the work of the archaeologists the historical and legendary material will be examined by experts in these subjects', we can see how in a diplomatic and low-key way Ó Ríordáin is using his 30 years' experience with newspapers to kill off the concerns that MacWhite had so recently raised without giving their author a renewed lifeline by as much as mentioning his name or even directly referring to a controversy which he had most tactfully stayed out of.

Ó Ríordáin appears not only to have given interviews to the *Irish Independent* and the *Irish Press* but also to have prepared lengthy written hand-outs for the journalists, for not only do both reports cover the intended excavations from the same angles, including lengthy and popular scholarly summaries of the historical and place-name evidence, but at least one paragraph (that referring to the examination of the historical and legendary evidence by relevant experts) actually appears word for word (presumably as Ó Ríordáin wrote it rather than spoke it at a press conference) in both papers. Since his early days as a photographer supplying photos to Cork newspapers from his home in Monkstown, through his penchant for writing popular articles on monuments, and after progressing into professional archaeology, when he published summaries of his excavations and museum field trips and was, presumably, reassured in this approach by Adolf Mahr and L. S. Gogan at the Museum, Seán P. Ó Ríordáin believed in generating popular support for his work by either writing it up for the press or providing hand-outs that journalists could use. He encouraged a stream of visitors to his excavations; these included Kilbride-Jones, who recalled his visit in *Archaeology Ireland*. The report at the end of the 1956 season at the Mound of the Hostages when he held a press conference at the site in the company of Glyn Daniel is a case in point.

Work on Tara began at Easter 1952, with Taoiseach Eamon de Valera pictured along with Ó Ríordáin putting the first spade into the ground. This photograph appears on the first page of the *Irish Press* on 21 June 1952. Ó Ríordáin's work started at the Rath of the Synods and moved from there to the Mound of the Hostages and Rath na Riogh. Sadly, his health declined rapidly in 1956, one of his last visits to the site being movingly described by his friend Daniel in an obituary in *University Review* 1957. His work on these sites had to wait for half a century before being finally reported upon (O'Sullivan 2005; Grogan 2008).

Acknowledgements

I wish to thank Catherine Troy and Dr Katharina Becker for their help in the preparation of this article. My main debt is to Fionbarr Ó Ríordáin, who kindly loaned me a series of his late father's newspaper cuttings on the occasion of his opening of the 'Mound of the Hostages' exhibition at the National Museum of Ireland in 2007.

Bibliography

- Cooney, G. 2007 In retrospect: Neolithic activity at Knockadoon, Lough Gur, Co. Limerick, 50 years on. *Proceedings of the Royal Irish Academy* 107C, 215–25.
- Grogan, E. 2008 *The Rath of the Synods, Tara, Co. Meath: excavations by Seán P. Ó Ríordáin*. Dublin. Wordwell.
- Hartnett, P.J. 1957 Excavation of a passage grave at Four Knocks, County Meath. *Proceedings of the Royal Irish Academy* 58C, 197–277.
- MacWhite, E. 1951 *Estudios sobre las relaciones Atlánticas de la Península Hispánica en la edad del bronce*. Disertaciones Matritenses II. University of Madrid.
- Mitchell, G.F. 1990 *The way that I followed*. Dublin. Country House.
- Mullins, G. 2007 *Dublin Nazi No. 1: the life of Adolf Mahr*. Dublin. Liberties Press.
- O'Donoghue, D. 1998 *Hitler's Irish voices*. Dublin. Beyond the Pale Publications.
- O'Sullivan, M. 1998 Eoin MacWhite: archaeologist, scholar, diplomat (1923–72). *Journal of Iberian Archaeology* 0, 133–42.
- O'Sullivan, M. 2005 *Duma na nGiall: the Mound of the Hostages, Tara*. Bray. Wordwell.
- Waddell, J. 2005 *Foundation myths: the beginnings of Irish archaeology*. Bray. Wordwell.
- Wallace, P.F. 2004 Adolf Mahr and the making of Seán P. Ó Ríordáin. In H. Roche, E. Grogan, J. Bradley, J. Coles and B. Raftery (eds), *From megaliths to metals: essays in honour of George Eogan*, 254–63. Oxford. Oxbow Books.
- Wallace, P.F. 2007 An error of judgement: rescuing Adolf Mahr's contribution to the National Museum of Ireland. In M. Duncan (ed.), *Speaking ill of the dead*, 167–211. Dublin. New Island.

The box of smiles

Mark Clinton

This contribution concerns my time excavating under Barry at the site of Rathgall, Co. Wicklow, a major middle/late Bronze Age hillfort (Raftery 1970; 1971). The site was excavated by a crew consisting of local workmen and a small team of archaeological assistants, among whom I was numbered.

I first reported for duty at Rathgall (Fig. 1) in the summer of 1971. The excavation had commenced in 1969 and after two seasons had already found its own rhythm. With Barry Raftery MA at the helm, the only apt description was 'clockwork'. The days on site were sunny and academically rewarding, and so most of our worldly concerns were focused on the evenings. I had been billeted along with the other members of the *Kampfgruppe* in a rather ramshackle old barracks in the nearby town. Full board, five days a week, for a fiver. Dinner was what it was. Indeed, with an abattoir next door, tomorrow's *plat du jour* was regularly on display on the open back of a trailer. '*À la carte*' took on a whole new meaning. Meanwhile, the daily packed lunches had introduced 'human-flesh sandwiches' into our collective lexicons. Still, if you're hungry enough—and we were teenage boys when we arrived, you must understand—you'll eat anything, and we did. Plates were always cleaned and then it was off to the pub.

One evening at our regular watering-hole a 'gentleman of the road' hobbled into the bar. Barry was already on his feet to buy this dusty and thirsty wanderer a drink when the landlady—who, it might be said, had certain aspirations of grandeur—arrived on the scene and promptly and loudly ushered the said gentleman from the premises. The crutch that our lately departed visitor had employed to enable his progress was now put to a new use. One by one, in an admirably well-timed sequence, the six panels in the glass door imploded into the room. 'It might have made more economic sense if you'd allowed me to buy him a drink', Barry suggested to the stunned proprietress.

Speaking of the Horror, the Horror, there wasn't a cinema within a radius of 30 miles or more that was beyond our range. Into Barry's blue and white mobile we'd all pile and off we'd go. *Twins of Evil* (pronounced 'eeee-villle') springs to mind. The crew accordingly adopted Vincent

Price accents for weeks afterwards. Henceforth Leinster Cooking Ware was known as 'medieeeeeeval' pottery.

My own good comrade Lui, who was later to return to civilian life and enjoy a very high profile in the King's Inn and Four Courts, took a particular dislike to the town and its occupants. He thereupon shipped a stereo system down from Dublin and set up the speakers in the bay window of the collective bedroom. Should Lui come back to the barracks in a particularly bad mood, then Wagner's *Der Ring* would be blasted out at full volume (and in its entirety) to the town. 'It's their turn to suffer', he would exclaim. This (often repeated) operation only served to drive us out to the pub earlier (and for longer).

Still, not everybody in the town necessarily deserved summary execution, which we discussed at great length and with enthusiasm over many a pint. Barry stated that he'd register his objection to this planned operation after the event. One particular citizen, having overheard a site-related debate on what had determined the precise siting of the hillfort, interjected with, 'Well, it's obvious, isn't it—convenience to the town'. We quickly returned to the topic of the forthcoming revolution!

In late 1971 extra funds became available, which led to the optimistically termed 'Spring Offensives' of 1972, 1973 and 1974. Nobody informed the weather gods, and an onslaught of wind-driven sleet and snow regularly assailed us. The site was promptly renamed Rathgallstadt. The dress code accordingly changed—layers of jumpers, fur-lined hooded combat jackets, and wads of newspapers stuffed into the boots. Lui took to wearing two pairs of socks, on his hands. The evening broadcasts of Wagner promptly increased in volume, and everybody now spoke in Colditz-type *deutsche* accents. The true pain would come at the end of a day's trowelling, when the caked mud was washed from your hands. Only then would you discover that you'd lost most of your knuckles and that the congealing agent in the mud was mostly blood. Barry knew how to offset any mumblings of discontent. If the day was particularly raw and nasty, he'd abandon all indoor administrative or academic duties and take his place amongst the trowellers. Leading from the front was always his style. We fought on.



Fig. 1—Aerial photograph of Rathgall during the excavations (source: DOEHLG).

Towards the end of every season Barry would organise a *Bierkeller* crawl. As this involved sixteen pubs (where you had to imbibe either a beer or a 'short'), these forays were not light engagements. One such expedition led to the town awakening to find that the Father Murphy statue (on its 6ft plinth) was no longer simply pointing towards Vinegar Hill. Indeed, the padre had found a new cause and was now proudly hoisting a placard in his outstretched hand. 'Free "Family Planning Devices" for the people of this town', was the nature of his protest. Anger amongst the civilians was rife, and suspicion was unfairly (we thought) pointed in the direction of the site. A delegation promptly turned up at our Field HQ. 'We're from the IRA and we demand that you hand over "Louie Magee" and his associates to us', the spokesman demanded of Barry. 'Are you from the Provisionals or from the Officials?', enquired our leader. 'The Officials', came the curt reply. Having ascertained that he was confronted with 'Stickies' and not 'Pinnies', the delegation was promptly evicted from the site. 'Stickies only shoot blanks', Barry explained to our enquiring wonderment.

In the midst of the hand-to-hand fighting (spring and summer) at Rathgall, it was decided that we also had to fully excavate the Neolithic single burial at Baunogenasraid in the adjacent County Carlow (Raftery 1974). The mound stood towards the middle of a sizeable, recently cut cornfield. The autumnal mornings would find the dew sprinkled generously upon a vast array of spider webs. The entire field would be sparkling in the rising sunlight upon our arrival, an unforgettable landscape. Slowly but surely the central tomb was uncovered. Barry became increasingly anxious that, when the time came to have the massive capstone lifted, the supporting uprights would collapse inward and crush the by then visible pot and disarticulated human remains. He soon devised a plan and it involved me. As the tallest and thinnest member of staff, it was decided that I should be lowered down into the chamber to retrieve the pot (Fig. 2). The technicality was that Raftery-Standards-of-Excavation could not be contravened, i.e. there could be no footfall on the unexcavated floor of the chamber. His solution was simple. I would be lowered upside down into the tomb. Thus, to my deep embarrassment, I was gripped by the ankles by Barry and Ned Kelly and, armed with an empty Kellogg's Cornflakes box, slid down through a cavity beneath the capstone. The Baunoge pot was accordingly rescued and now enjoys Central Court glory in the National Museum.

The Central Court in the NMI also plays host to one of Rathgall's many treasures. The artefact in question made its original appearance at a most inopportune moment. The summer season of excavation was drawing to a close and backfilling (by hand, naturally) had been initiated three days previously. By this stage I had been designated by Barry as Specialist Troweller, and spent my days resolving and moving from one key feature to another. One final pit awaited attention and I embarked upon this task with two days remaining. The bottom layer of this pit was a dense soot-like stratum. Whilst this fill was methodically scraped away, the backfilling was proceeding at a frantic pace. As the sky was blue and the sun beating down, this task was arduous for those slaving away at the work. On the final day, not only was the deadline looming but also several crates of beer (courtesy of Barry) were awaiting the eager attention of the crew. As I trowelled away, I became increasingly aware of the 'island' status of my pit. Barry's visits accordingly increased in number. All of a sudden, the velvety black surface of the fill of the pit was broken by a golden glint. The tip of the trowel lifted the source of reflected light onto my soot-coated hand. There, beaming in the sunshine, was a piece of ring-

Fig. 2—Baunogenasraid, Co. Carlow. Barry Raftery and aide-de-camp posed by Charlie Keegan of *The Nationalist and Leinster Times* (Vol. 90: Fri. 13 Oct. 1972). The enthusiasm of B.R. is noteworthy.



money, as they were then quaintly known. The fact that I was no longer beavering away quickly brought the hovering Raftery onto the scene. Hastily I shielded the object with my other equally black hand. 'Are you praying or what?', came the terse enquiry. 'Giving thanks', said I, while uncovering the piece of gold. Barry's exclamation was both florid and in German, and as I am totally unversed *im Deutschen* I couldn't possibly repeat exactly what it was he said. My work was done and our collective reward instant as we laid into the beer. And as for the unfinished pit? The next morning, while we all decamped and were shipped back to the Big Smoke, Barry was hard at work trowelling away at the feature on a now otherwise deserted site. His own return to the city (and a much anticipated meal in his favourite Indian restaurant) was put back by what transpired to be another long day. As

he said to me when we met up upon his return, 'It was the pit that mattered, not some arbitrary deadline'.

The Finds Office at Rathgall, which also 'doubled' as canteen, refuge from the elements and political forum during the tea breaks, was presided over by Nuala Raftery. We were all amazed by the fact that Barry had such an interested sounding-board in contrast to our own respective girlfriends, who could never understand why we would spend endless weeks away from them on a hillside in the middle of nowhere searching for broken dishes. Amongst all the myriad boxes of late Bronze Age coarseware pottery, a select number of depositories were particularly noteworthy. One of these, naturally enough, was the 'Goodies' box, a selection of our most impressive finds with which to dazzle the periodical visitors. Many of these came from Germany, a

Fig. 3—Chief amphibian wrangler Sara Raftery on duty at Rathgall in 1978 (from Barry's archive).



reflection of Barry's academic standing *im Vaterland* (or, in Barry's case, *dem Mutterland*). Another cardboard receptacle contained an array of stray human teeth and mandible fragments. This became known as 'the Box of Smiles'. A third coffer was more controversial. The middle enclosure at Rathgall was occupied by a dense forest of ferns. This diminutive tropical domain was home to a veritable host of bloodthirsty denizens known colloquially as horseflies. Early on in basic training Raffo had instructed us as to how to contend with the constant *Luft* incursions emanating from the Land of the Undead. We were briefed at length that these flying vampires would circle the intended victim three times before coming in for the kill. You had to develop a seventh sense that made you subconsciously aware of a slow-moving shadow on the parched dust surface of your immediate environs. Once detected, the assailant was to be allowed to land before being dispatched to the 'Great Bloodbank in the Sky'. Personally, I managed to either instantly dispatch or triage the various agonists that targeted me. Other comrades had not read the Geneva Convention and insisted upon interning wounded enemy combatants. These were led away to the aforementioned 'detention centre' in the Finds Office. This camp, which in present-day terms might be called Guantánamo but in our day wasn't, was denounced by Barry. He was totally opposed to 'internment without trial'. The imminent arrival of some academics from Europe prompted its demise. All that remained was a gnawing fear that we were beginning to suffer from Fern Fever!

In 1978 the music scene in Britain, and soon afterwards in Ireland, was reinvigorated by what became known as 'the New Wave'. Barry, as a Beatles fan (the *White Album* being a particular favourite of his), was not impressed with this musical innovation. Whilst his ear may not have been attuned to radical new sounds, there was nothing wrong with his eye for spotting new talent, and thus our depleted ranks were now recharged by our own New Wave. Such future archaeological notables as Matthew Stout, Fionnbarr Moore, Geraldine Thornton (Stout) and Cormac Bourke arrived in camp. These raw recruits could never understand all the talk of lousy rations and damp beds. The fact that Headquarters was now in a fine rented townhouse was lost on them. Not to mention the fact that, courtesy of Nuala R., such treats as stuffed peppers were now on the menu. A far cry from human-flesh sandwiches! As an *alter Hase*, and hopefully with merit, I was now promoted to Deputy Director. My pride in this new rank was tempered neither by Barry's apologetic caveat, 'I'm afraid there's no extra money available', nor by the fact that he was hardly ever absent from the site!

This so-called 'Late-Season' at Rathgall also witnessed the arrival of a new scion of the Raftery family. Barry's elder daughter Sara was as enthusiastic as her Da and insisted on contributing to the campaign. She was duly appointed as my 'assistant'. It quickly came to Sara's notice that upon our arrival on site each morning a superfluity of froglings and newts would have found themselves trapped in pits and post-holes. My enthusiastic new deputy was adamant that she and

I should rescue them. The first realisation after this UN-backed mission was launched was that this was not going to be a rapid or an easy objective to achieve. About a quarter of an hour had passed before Da Raftery, on his morning inspection, arrived on the scene. 'What the [impolite] are you doing? Have you not started on that pit yet?' While I was mentally attempting to frame a credible response, the young Raftery piped up, 'We're helping the baby frogs and the little lizards to go home to the mummies and daddies' (Fig. 3). The new directive came without a blink: 'Carry on'. And thus a new morning ritual, with various volunteers, was inaugurated, one never to be questioned again by the Director.

Barry's devotion to his daughters is unadulterated. During the early 1990s, whilst on a ten-year weekend break from archaeology, I received a frantic call from Pater Raftery. 'If you're ever mad enough to want to work in archaeology again you'll dig me out of the pit I find myself in today', he intoned down the phone in barely disguised terror. His quandary was quite straightforward but not so simple. Basically, the crux was that his younger daughter Tilly, a highly devoted 'Take That' fan (world-famous pop band, for older readers), had failed to secure a much-sought-after ticket for their forthcoming (and now sold-out) concert in the Point Depot. To cut a long story short, this quest led to a totally bemused Nuala Raftery and myself being besieged along with the band in the foyer of the Westbury Hotel by several hundred screaming teenage girls. When he phoned later that evening, Barry wanted to know whether, had he been there, he would have been mistaken for a member of the band. More importantly to him, though, Tilly got to go to the ball.

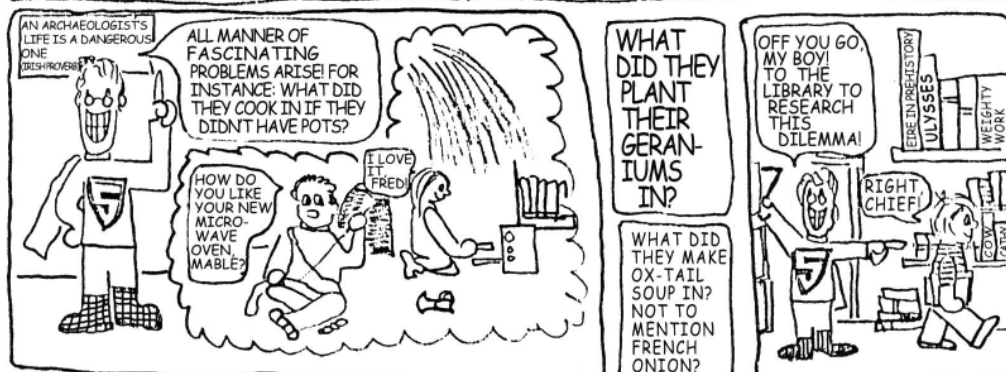
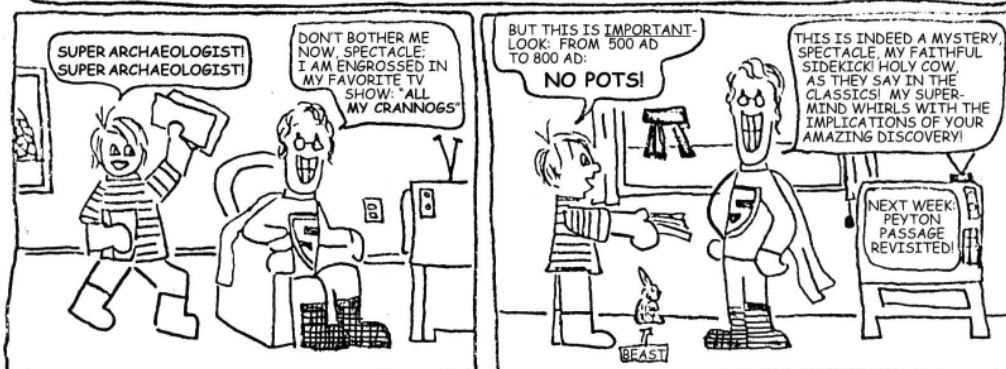
In more recent times, having made an equivocal decision and finding myself back in archaeology, my luck was to diminish further. While Stalingrad—I mean, Carrickmines—initially sounded and was planned as a one-summer romp, events, as Harold Macmillan once said, happened against me. To find your hitherto anonymous site suddenly make the front pages and news bulletins is a most unwelcome development for any field commander. The first day of media coverage was interrupted by only one assuaging extraneous intervention. The caller identification on the screen of my mobile phone read 'Barry R'. His advice was short and concise. 'Remember the pit with the ring-money? A site is only finished when there is nothing more to be done; until then you hold on.' A friend in need is a true friend indeed.

On our not-frequent-enough 'old comrades' get-togethers in 'The Hill' in Ranelagh, Barry and I often talk about going back for one final campaign at Rathgall. One of these years maybe we shall. As Barry would always instruct us in relation to a particularly complex feature, 'from the known to the unknown'. To Barry Raftery, *mein Mentor und mein lieber Freund: Zum Wohl!*

References

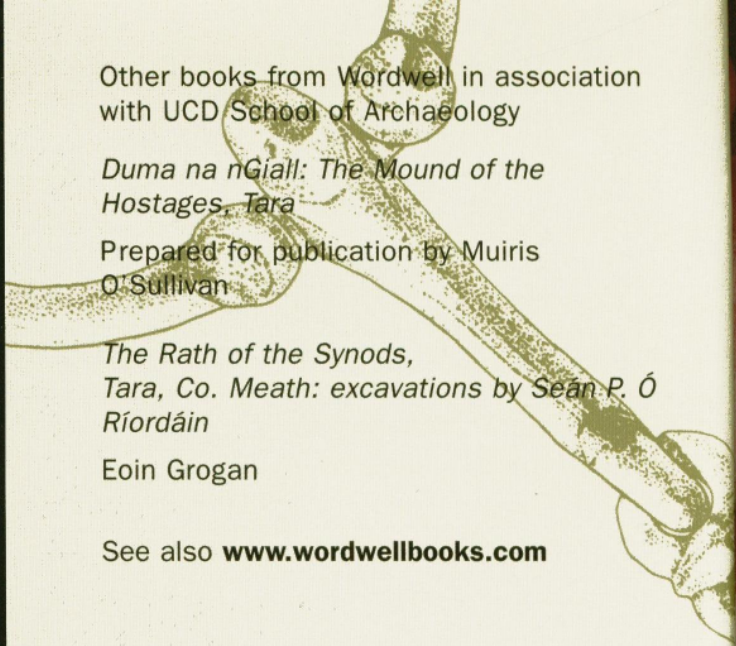
- Raftery, B. 1970 The Rathgall hillfort, County Wicklow. *Antiquity* 44, 51–64.
- Raftery, B. 1971 Rathgall, Co. Wicklow: 1970 excavations. *Antiquity* 45, 296–8.
- Raftery, B. 1974 A prehistoric burial mound at Baunogenasraid, Co. Carlow. *Proceedings of the Royal Irish Academy* 74C, 277–312.

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THE PROBLEM OF THE POTS



Cindy Dykhoff

Allegedly this cartoon was submitted to Barry by an American student as a piece of coursework. While there is no record of what grade might have been received, we know that the cartoon, always had a place of pride on the wall of his office (Cindy Dykhoff 1978).



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Archaeologists from Ireland, Britain and Europe have come together to honour the life and career of Barry Raftery, recently retired Professor of Celtic Archaeology at University College Dublin.

Barry was appointed Professor of Celtic Archaeology in the Department of Archaeology, UCD, in 1997, and led a programme of major change and expansion in the areas of teaching and research. Professor Raftery is best known for his widely published work on the Iron Age, including the landmark monograph *Pagan Celtic Ireland* (1994), his extensive excavations at the late Bronze Age hillfort at Rathgall, Co. Wicklow, and his programme of innovative research on wooden trackways and associated features in Irish raised bogs.

The volume includes an appreciation of Barry's career and the contributions are organised into thematic sections reflecting major areas of his own research interests. Papers on the archaeology of wetlands are followed by a series on technology and artefacts. The key issue of contacts and communication is covered, and there is a section on one of Barry's long-term interests: La Tène art. There are a number of papers on life and death in later prehistory, followed by others on hillforts and enclosures, an interest of Barry's from his early graduate research days. Appropriately the volume concludes with a historical perspective, looking at archaeological events and characters in twentieth-century Ireland. This includes an account of the excavation by Barry's father, Dr Joseph Raftery of the National Museum of Ireland, of the passage tomb at Cairn H, Loughcrew.

This festschrift is a testament to the very deep regard and affection in which Barry is held at home and internationally.



Comhshaol, Oidhreacht agus Rialtas Áitiúil
Environment, Heritage and Local Government

